



1996

**WESTERN AUSTRALIAN
YEAR BOOK**

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Users are warned that this historic issue of this publication series may contain language or views which, reflecting the authors' attitudes or that of the period in which the item was written, may be considered to be inappropriate or offensive today.

Cover: The front and back cover features the Illyarrie, Red Cap Gum (*Eucalyptus erythrocorys* F. Muell.) a small native tree naturally inhabiting a restricted area in the Irwin River - Shark Bay coastal districts of Western Australia.

The flowers, either single or in umbels of two or three, consist of a bright red biretta-like cap which falls to reveal stamens of first greenish yellow, later turning to bright sulphur yellow. Flowering is often prolific and spectacular, particularly from March to June.

Design: Martin Thompson is a wildlife artist specialising in the flora and fauna of Australia and South East Asia.

Western Australian Year Book 1996

WESTERN AUSTRALIAN YEAR BOOK

No 32 - 1996

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**Deputy Commonwealth Statistician
and Government Statistician**

**Australian Bureau of Statistics
Western Australian Office**

**Australian Bureau of Statistics
Catalogue number 1300.5**

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ISSN 0083-8772

Printing and binding by Advance Press, Perth

PREFACE

The 1996 Western Australian Year Book is a general reference work produced by the Australian Bureau of Statistics (ABS) presenting current data on the social, economic and demographic make up of the State.

The information in the 1996 Western Australian Year Book is compiled from the wide range of data which is collected by the ABS and made available to the community. The data is disseminated in printed publications; in electronic format and on microfiche, magnetic tape, floppy disk or CDROM (such as the Integrated Regional Database and the Australian Year Book).

Publications and other statistical products can be purchased from the ABS Bookshop. Clients can also arrange to be placed on a publications subscription service to receive ABS publications on a regular basis. The ABS, through the **Library Extension Program**, aims to ensure that Australian citizens of all ages, backgrounds and geographic location have ready access to statistics about all aspects of Australian society. There are over 50 participating libraries in the program holding a comprehensive range of ABS publications. The complete list of Western Australian libraries participating in the **Library Extension Program** are listed in the Appendix.

The Western Australian office also maintains a comprehensive Information Consultancy Service which provides information tailored to support informed decision making within Government and the community generally. Consultants are available to discuss client's requirements and to work together with them to achieve the best solution for their information needs.

Production of the 1996 Western Australian Year Book required a range of skills and considerable effort. I gratefully acknowledge the valuable assistance given by individuals, businesses, government agencies and other organisations who have written articles, updated tables and text or supplied photographs and maps.

This 1996 edition was compiled by the ABS Publishing section and I would like to congratulate them for their professionalism and commitment. I thank the staff of Advance Press; Martin Thompson, the designer of this year's striking cover; and all ABS staff who made valuable contributions.

P. C. KELLY
Deputy Commonwealth Statistician
and Government Statistician
July 1996

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Photography Competition

During the early part of 1994 the ABS organised a photography competition for Western Australian Secondary School students. Some photographs submitted as a result of this competition were included in the 1995 Western Australian Year Book. The competition was held again during 1995. The assistance of the judges, participating schools, and the interest shown by the students is gratefully acknowledged. The winner of the first prize of \$150 was Ona Janzen of Cyril Jackson Senior High School for her photograph entitled '+Person+'.



GENERAL INFORMATION

Symbols

The following symbols mean:

ABS	Australian Bureau of Statistics
n.a.	not available
n.e.c.	not elsewhere classified
n.e.i.	not elsewhere included
n.e.s.	not elsewhere specified
n.p.	not available for separate publication but included in totals where applicable)
n.y.a.	not yet available
p	preliminary figure or series subject to revision figures or series revised since previous issue
—	nil or rounded to zero
..	not applicable
—	break in continuity of series (where drawn between two consecutive figures or columns)
*	subject to sampling variability too high for most practical uses

Other forms of usage

Rounding. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

Services available from the ABS

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Consultants are available to provide information and advice on a wide range of statistical requirements. Talk to our consultants for information options that can benefit your policy making, decision making, planning and marketing needs.

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Our experienced and professional consultants can provide advice and assistance on statistical project planning, design of surveys, questionnaire design and data analysis.

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A growing range of our data is available on electronic media.

Our PC-AUSSTATS service enables on-line access to a database of thousands of up-to-date time series. Selected datasets are also available on diskette or CD-rom. See the ABS Catalogue of Publications and Products (1101.0) for a complete listing of electronic products.

A wide range of ABS information is available via the Internet, with basic statistics available for each State, Territory and Australia. We also have Key National Indicators, ABS product release details and other information of general interest.

The ABS address on the Internet is <http://www.statistics.gov.au>.

Printed Publications

These are detailed in the Catalogue of Publications and Products, Australia (1101.0), which is available from any ABS Office and also on floppy disk.

Unpublished Data

Available on request.

ABS Library Network

There is a library in the ABS office of each capital city. These libraries hold current and historical ABS material, a wide range of statistical material from international agencies, and other material on subjects relevant to the Bureau's activities. Public access to these holdings is available on a self-help basis. The ABS Central Office Library (Canberra) also provides ABS publications and other material through inter-library loan.

Library Extension Program

Through the Library Extension Program (LEP), ABS publications are made freely available to the public for reference at many public and tertiary libraries. For the complete listing of LEP libraries in Western Australia please see the Appendix. A number of libraries also hold ABS census data on CLIB91. Please contact your nearest library to check their holdings before visiting.

Libraries requiring further information on the LEP, please contact the LEP co-ordinator in your nearest ABS Office:

Feedback from readers

The ABS endeavours to keep the balance of the contents of the Western Australian Year Book in line with the ever changing social, economic and demographic conditions in the State. Comments on the relevance, adequacy and balance of the contents of the Western Australian Year Book are welcomed and should be directed to The Editor, Western Australian Year Book, ABS Perth Office.

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HISTORY

Chapter 1

HISTORY

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Chapter 1

HISTORY

Western Australia from 1900 to 1930

Three decades of peaceful development and war

John M. Clark, B.A. (Hons) Former Vice-president and Councillor of the Royal Western Australian Historical Society

Turn of century

The earliest years of the 20th century were tumultuous times for the people of Western Australia. Only ten years after the achievement of responsible government, the public voted decisively in favour of joining the federation of the Commonwealth of Australia.

The Commonwealth was established by proclamation on 17 September, 1900 and the new Constitution uniting Western Australia and the other colonies in 'one indissoluble Federal Commonwealth under the Crown of the United Kingdom' came into effect on 1 January 1901. The latter month also marked the passing of the Victorian era with the death of the long-reigning Queen and the accession of King Edward VII. After ten years in office John Forrest had resigned the premiership in February 1901 to contest the first Federal election, an event followed several months later by a State election which ushered in a decade of political instability. Western Australian volunteers were involved in the Boer War, this being the first and last time that troops from this State fought under the Western Australian flag.

At the census conducted in 1901, Western Australia had a population of 184,124 persons compared with 49,782 persons only ten years previously. The State remained under the volatile influence of the gold rushes, although the output from alluvial mining had been declining since 1898. The census revealed that 32 percent of the population were on the goldfields, compared with about 36 percent in the metropolitan area, a relationship of far-reaching political and social significance especially as a majority of the newcomers to the State lived on the goldfields.

The new-found prosperity of the State was evident in the streets of Perth, Fremantle, Kalgoorlie and Coolgardie. Imposing public and commercial buildings had been constructed, including hotels,

theatres, the Queen Victoria Library, and the Museum. Gas lighting of streets was extensive and tramways were being introduced. With the opening of the harbour, Fremantle's status as Western Australia's principal port was now confirmed. New suburbs were developing, including North and East Fremantle, Leederville, Subiaco, Victoria Park and Claremont.

Significant social advances had been made since the granting of responsible government, especially in the closing years of the century. The introduction of compulsory school attendance had accelerated enrolments at government primary schools. Women's suffrage had been introduced in 1899, ahead of all other British colonies except South Australia and New Zealand. In 1900, Western Australia became the first Australian colony to establish an Arbitration Court on the New Zealand model. Likewise, Government railway workers, the largest group of employees in the State, enjoyed an eight hour day, while a minimum wage clause was written into government contracts.

There were still many glaring blemishes, especially in the fields of public health and law and order. The government had been slow to improve health services, leaving this field to private enterprise, charity and the religious orders. By 1900, Perth and Fremantle hospitals were recognised as public institutions, but both were under-staffed and crowded with patients, partly because of epidemics of typhoid associated with the gold rushes. Unsanitary conditions were widespread, not only on the goldfields, but also in the makeshift camps in Perth, Fremantle and the suburban area generally. The 1901 census revealed that more than a third of the habitations in the State were built of 'calico, canvas or hessian.' Quarantine facilities were totally lacking, as became apparent when the first case of plague was reported at Fremantle in 1900.

Likewise, the law and order situation reflected many of the attitudes and practices of Victorian England. A Royal Commission appointed in 1898 had made sweeping recommendations for reform of the prison system only to have its three-volume report set aside by parliament without debate. The cramped conditions at Fremantle Gaol reflected its design for British convicts spending most of their time on public works outside its walls. A special prison for Aboriginal offenders persisted on Rottnest Island, where juvenile delinquents, even waifs, were also detained. Seven men went to the gallows in 1900, and thirty were to follow them before the last one in 1963.

The first decade (1901-1910)

Political instability

The first decade of the century saw rapid changes in the government of the State without parallel either before or after that time. Between February, 1901 and September, 1910, nine different ministries were sworn in, of which five remained in office for less than a year and the briefest for only a month. This situation developed from an indecisive 1901 election (when the two leading

groups, the Ministerialists and Oppositionists, won 19 and 20 Assembly seats, respectively), factional divisions among John Forrest's former supporters and the birth pangs of the party system as we know it today. At that time, the only political grouping with a formal party organisation and a common political platform was the Labor Party. This was a new body formed by the Trades Union and Labor Congress held at Coolgardie in April 1899. After the recent introduction of payment of members of parliament it was able to field twenty two candidates at the 1901 election. The six seats it won placed the party in a position of influence alongside the five independents.

PREMIERS OF WESTERN AUSTRALIA 1890 TO 1911

	Period of Office
John Forrest	Dec 1890 - Feb 1901
George Throssell	Feb 1901 - May 1901
George Leake	May 1901 - Nov 1901
Alfred Edward Morgans	Nov 1901 - Dec 1901
George Leake	Dec 1901 - Jun 1902
Walter James	Jul 1902 - Aug 1904
Henry Daglish	Aug 1904 - Aug 1905
Cornthwaite Hector Rason	Aug 1905 - May 1906
Newton James Moore	May 1906 - Sep 1910
Frank Wilson	Sep 1910 - Oct 1911

Immediately following the election George Throssell, "the lion of Northam", formed a government composed predominantly of Forrest's former ministers. However, Throssell's "business as usual" approach to the twentieth century found little support and he was forced to stand down in favour of George Leake, a leading Oppositionist from the 1890's. Leake and Walter James, a liberal of independent disposition, were to be the only effective premiers in the first half of the decade. James served in Leake's first ministry, declined to participate in the second (while continuing to support Leake) and then assumed the premiership after Leake passed away at the early age of 45.

By the time of the 1904 elections the Oppositionists had ceased to exist as an independent grouping, dividing themselves between the Labor Party and the Ministerialists which fought a two-way contest. After his party had won 23 of the 50 Assembly seats, the youthful Henry Daglish, the member for Subiaco, was able to form Western Australia's first Labor government, but it relied upon independent support and survived only a year. Curiously, Daglish retired from politics to become employers' representative on the Arbitration Court.

The Labor Party then had to wait until 1911 before Joseph Scaddan's landslide election victory returned it to office. In the interim, three Ministerialist governments were formed under Cornthwaite Rason (1905-1906), Newton Moore (1906-1910) and Frank Wilson (1910-1911), all of whom were closely associated. After defeating Daglish over an attempt to buy out the Midland Railway Company, Rason forced an election in 1905 to consolidate his position, winning it decisively. Both Rason and his successor Newton Moore retired to become Agents-General for Western Australia in London and both were knighted.

Continued development

The many changes in political leadership in the first decade would have been more disruptive but for a common emphasis on infrastructural development and continuity in the tenure of certain key portfolios. Henry Gregory, the member for North Coolgardie, then Menzies, held the Mines portfolio in the Leake and James ministries before assuming the double portfolio of Mines and Railways in the Rason, Moore and Wilson ministries from 1905 to 1911.

The early twentieth century governments assumed much of the burden of completing major projects initiated during the Forrest era. The main work on the construction of the Goldfields Water Supply Scheme was undertaken when Cornthwaite Rason was Minister for Works in the second Leake Government. The scale of the project was immense, even by international standards, and placed serious strains on the underdeveloped industrial sector of the State. Likewise, although shipping began to frequent Fremantle Harbour from 1900 onwards, the major works were not completed until 1902, and further expenditures continued well into World War 1.

Other imaginative projects initiated at this time were the construction of the Rabbit Proof Fence in an attempt to halt the influx of rabbits from the Eastern States, and the Canning Stock Route (a series of new or improved watering points stretching from Halls Creek to Wiluna) intended to secure more supplies for the meat-hungry goldfields. Large teams of scarce camels were required in both instances to surmount the logistical challenges of the outback. From this date, the faint traces of these great enterprises began to enliven maps of Western Australia's inland and northern areas.

Two of Western Australia's most important public buildings were constructed in the early years of the century, namely the Supreme Court in St George's Terrace and the new Parliament House in West Perth. A national competition was held for the design of the "House on the Hill" which finally brought the two chambers together from their cramped and inconvenient quarters in Hay Street and St George's Terrace. On grounds of economy, the building was a more modest one than the grandiose entries submitted. The foundation stone was laid by the Governor, Sir

Arthur Lawley, on 31 July 1902 and construction virtually spanned the premiership of Walter James whose government fell after the opening ceremonies were completed and the parliamentary proceedings began.

Opening the wheatbelt

The most far-reaching development of this decade was the spread of agriculture from the traditional higher-rainfall areas of the State to the drier inland areas which became known as the wheatbelt. Credit for this undertaking goes mainly to Cornthwaite Rason and Newton Moore, together with James Mitchell who entered Parliament as Member for Northam in October 1905 and became Minister for Lands and Agriculture in the Moore government.

A sustained and well coordinated effort was required to implement this giant undertaking, involving surveying of suitable land, its subdivision to ensure each settler a minimum 500 acres of better soils, construction of many miles of light access railways (known as agricultural railways), fertiliser supply and the promotion of settlement, including British migration.

Cheap credit was offered through the Agricultural Bank (later the Rural and Industries Bank) which was to play a major role in the development of the industries of the State generally. In 1906, the Moore ministry liberalised the Bank's lending policy and subjected its management to stronger political control. The same legislation authorised loans up to the full value of farm improvements, a move which greatly accelerated settlement while increasing rural indebtedness.

Under these influences, Western Australia's wheat production increased nearly sixfold from less than 1 million bushels in 1901 to 5.9 million in 1910. Local requirements (previously largely imported) were soon satisfied and substantial exports occurred from 1907 onwards. Many of the towns in the present wheat belt developed from the railway sidings on the spurs or loops from the Great Southern and Eastern Goldfields lines constructed during this decade. Frequently settlement raced ahead of the rail and local histories record the joyous celebrations when the first train laden with dignitaries finally arrived.

Reform measures

Milestone legislation reached the statute books during this period, much of it reflecting the reforming zeal of George Leake and Walter James, both young Perth lawyers with a record of opposition to Forrest. Western Australia's criminal law was codified in one convenient statute along the lines of a pioneering Queensland code evolved by Sir Samuel Griffith, a prominent jurist and former Premier of that State. A Prisons Act repealed all previous statutes concerned with prisons (sixteen of them) and implemented many of the recommendations of the 1898 Royal Commission, including the closure of the Aboriginal prison on Rottnest Island. Forrest's Conciliation and Arbitration Act was also repealed and replaced by new legislation improving the conciliation procedures and bringing more workers into the

system, partly through lowering the eligible age. A Public Service Act made the service accountable to Parliament through a Public Service Commissioner, thereby addressing the long-standing problem of political patronage. Following this enactment, the public service of the State was completely reorganised, including classifications and establishment of machinery for recruiting, training and promotion.

The year 1905 saw the passage of the *Aborigines Act* ("An Act to make provision for the better protection and care of the Aboriginal inhabitants of Western Australia") which established the main features of Aboriginal administration for the next 30 years. This was the culmination of a process initiated by James with the appointment of a royal commission, followed through by Daglish and completed by Rason. An Aborigines Department was established, headed by a Chief Protector of Aborigines who became the legal guardian of every Aboriginal and half-caste child up to the age of sixteen. The legislation also set in train the now discredited system of segregation and training of Aborigines of part descent with a view to their integration into white society. Cohabitation between white men and Aboriginal women was made a punishable offence. Among the more positive elements of the legislation, reserves could in future be established for the use of Aborigines and employers (mainly pastoralists) were made responsible for the provision of "good and sufficient" rations, blankets, medical attention and other necessities. The Criminal Code had already repealed most of the discriminatory legislation relating to the trial of Aboriginal offenders.

Advances in education

One of the highlights of the first decade was the advances in education which occurred on many fronts. There was a surge in the number of pupils at State primary schools from 18,484 in 1900 to 32,498 in 1910, and a concurrent increase in the number of schools from 223 to 468. Much of the increase in entrants resulted from a tightening of the rules governing compulsory attendance, which affected mainly the metropolitan area. The disproportionate rise in schools reflected mainly the spread throughout the newly settled agricultural areas of one-teacher rural schools. To meet the demand for teachers, a Teachers Training College (now part of the campus of Edith Cowan University) was established at Claremont in 1902, but the quantity and quality of its intake was affected by the absence of public secondary schools until Perth Modern School opened its doors in 1911 followed by the Eastern Goldfields High School at Kalgoorlie in 1913.

Part of the void in secondary education was filled by churches and private interests. Some of the better known educational colleges providing both primary and secondary education were founded during this period, including Perth College (1901), Methodist Ladies College (1908) and Christ Church Grammar School (1910). In 1910 the Anglican church's somewhat belated educational effort was strengthened when Guildford Grammar

School, founded fifteen years earlier by Charles Harper, came under its control.

The first positive step towards the establishment of a university in Western Australia was taken in 1904, when the James government made an endowment of over 1,600 hectares of land for that purpose. A royal commission appointed by the Moore government reported favourably on the project in 1909, and the establishment of the institution was then authorised by the *University of Western Australia Act, 1911*. Two years later, the University began receiving students at temporary quarters in Irwin Street, Perth. There it remained until 1931 when the first of the handsome new buildings constructed with the aid of a generous bequest from the estate of Sir John Winthrop Hackett, proprietor of the West Australian newspaper, became available for occupancy.

The second decade (1911-1920)

By 1911, the population of the State had grown to over 282,000, the annual rate of increase since 1901 being a remarkable 4.4 per cent. Of the gain of 98,000 persons, 44,000 derived from natural increase and 54,000 from the excess of arrivals in the State over departures. Equally remarkable shifts had occurred in the distribution of the population, the goldfields losing ground in favour of the agricultural areas which increased their share of the total to 36 per cent compared with 38 per cent in the metropolitan area.

Labour assumes power

At the general elections in October 1911, John Scaddan, a former goldfields mine worker, led the Labor Party to a decisive victory which marked a watershed in the State's political history. This was the first Labor government to win a majority of seats in the Assembly and the first to serve a full three year term. Scaddan was returned a second time in 1914, but with a greatly reduced majority which forced him to stand down in favour of Frank Wilson, the Leader of the Opposition, in 1916.

Because of the outbreak of World War I in 1914 and his electoral setback in the same year, most of Scaddan's distinctively Labor legislation was introduced during his first term. Significant measures enacted between 1911 and 1914 included further modifications to the arbitration system (principally to remove the unused conciliation machinery), improved workers compensation benefits and the establishment of the Workers Homes Board (later the State Housing Commission and Homeswest).

The government is perhaps best remembered for setting up a number of "State Trading Concerns", including a State shipping service (1912), three saw mills (1913-14), a brick works (1915) a meat freezing works at Wyndham (1915-19), a factory for the manufacture of farm implements and a string of hotels at country centres. Despite initial controversy, subsequent governments continued to operate most of these enterprises either as an arm of the Public Works Department or under separate management. In

the 1920s and 1930s, the State Shipping Service provided an essential link between Fremantle, the northwest ports and Darwin. The State sawmills won the initial contract to supply 1.4 million karri sleepers for the transcontinental railway and Scaddan had the distinction of cutting the first two of these on 8 December 1913. To cap all these enterprises, this big, jovial man with the nickname 'Happy Jack' pre-empted the Perth City Council in purchasing for the State Government the privately owned tramway system.

The Scaddan government also pushed on strenuously with the further development of the wheatbelt, partly to provide alternative employment opportunities for workers in the depressed gold mining industry. The rate of agricultural railway construction between 1911 and 1916 exceeded that of any previous period. Technical support for the burgeoning industry was strengthened through a reorganisation of the Department of Agriculture, the appointment of a noted wheat breeder as Commissioner of the Wheatbelt and the opening of agricultural experiment stations at strategic locations.

In 1915, the area under wheat reached a new record level of 1.7 million acres, with a corresponding record production, and Western Australian wheat was now firmly established in the United Kingdom market. Nevertheless, the industry suffered its first major setbacks during this period. Droughts were experienced in parts of the wheat belt in 1911 and more generally in 1914 when there was almost a complete failure of the crop and it became necessary to import grain from Argentina. An Industries Assistance Board was set up to aid distressed farmers, first as a temporary measure and then as an arm of the Agricultural Bank.

Two Archbishops

The second decade was important in the history of the church in Western Australia. The year 1911 saw the consecration of Patrick Joseph Clune as Roman Catholic Bishop of Perth and two years later the elevation of Perth to an archbishopric with Clune as its first incumbent. In 1914, Kalgoorlie became the third Anglican diocese (the others being Bunbury and the North-west) thereby founding a province with Charles Owen Leaver Riley as the first Anglican archbishop of Perth. These two archbishops gave long service to the community, Riley passing away in 1929 and Clune in 1935. Both were appointed chaplains general of the Australian Imperial Force. Such was their standing among the people of Perth that they were frequently called upon to perform lay functions such as the arbitration of industrial disputes.

First world war

The outbreak of the First World War on 4 August 1914 was followed by a rush of volunteers to the recruiting points. Training camps were established at Blackboy, at the foot of the Darling Ranges, and other centres where limited training was undertaken before embarkation for the theatres of war. The speed of the Australian response generally was such that a large fleet carrying the first division of the Australian Imperial Force, including a

Western Australian unit, was ready to sail from Albany under Australian and Japanese escort on 1 November, 1914.

Over the whole period of the war 416,809 Australians volunteered for active service overseas, including 32,231 Western Australians. The majority of the troops from this State served in eight battalions of infantry. Casualty rates, incurred mainly at Gallipoli and on the Western Front, were extremely high, totalling six thousand killed or died of wounds with another eleven or twelve thousand wounded. As the war progressed recruitment began to fall short of the casualty rate despite a relaxation of physical standards such as height.

On the home front there was nothing comparable to the "total war" atmosphere of World War II. Nevertheless, the Commonwealth Government, through its exclusive defence powers and regulations under the War Precautions Act, began to exert a greater measure of control over the economy of the country. War expenditure was met mainly through war loans supplemented by additional taxes, including income tax, entertainment tax, death duties, and wartime profits tax, most of which were previously preserves of the States. To limit inflation, price controls were introduced, but the range of products covered was much smaller than that of World War II.

Major problems arose through the cessation of certain imports and shortages of shipping for export products, especially wheat and wool. In this connection, Western Australia benefited tremendously from the Commonwealth's negotiation of an agreement with the British government to buy the whole of Australia's wool and wheat output for the duration of the war and to ensure adequate shipping space. A central wool committee handled the appraisal of the wool clip and its allocation between local manufacturers and the British government. In the case of wheat, an Australian Wheat Board was set up to implement a Commonwealth-wide pooling scheme. In this context, the State government - when still under Premier Scaddan - took control of the marketing of the crop. Wheat handling agents were appointed, one of which was Westralian Farmers, a cooperative founded in 1914. In 1918, this company won the exclusive rights to handle the crop, a breakthrough which contributed to its eventual emergence as Australia's most successful agricultural cooperative.

Political realignments

The war years saw two significant realignments of the political parties in Western Australia, the first being the emergence in 1914 of the Country Party as the political wing of the Farmers and Settlers Association (later the Primary Producers Association). At the outset, this party pursued a vigorously independent line. In a three-way contest with the Labor and Liberal Parties at the October, 1914 elections it won eight seats in the Assembly. In July, 1916, however, the Country Party joined the Liberal Party in defeating the Scaddan Government and thereafter the two parties

have always acted as a coalition with the mutual compromises thereby entailed.

In 1917 the former Liberal Party became known as the Nationalist Party. This was an outcome of the two divisive Commonwealth referenda on conscription for overseas service during the Prime Ministerships of William Morris Hughes. At both these polls (in October, 1916 and again in December, 1917) Western Australians voted more decisively than any other State in favour of compulsory service. The vote split the Western Australian Labor party (though less drastically than in other States), some pro conscriptionists leaving the party to form a National Labor Party and others (including Scaddan) to join a Nationalist Party constituted from the non-Labor political forces. In the reshuffle, Wilson lost the leadership of the Nationalist Party to Henry Lefroy, who led the new grouping to victory at the complex general election of September 1917.

The buoyant twenties

The 1920s were a period of buoyant optimism and considerable physical and social progress in Western Australia, especially in the first half of the decade. The gold mining industry remained in the doldrums, but there were many positive influences. In the immediate postwar years wheat and wool prices were high. The timber industry also experienced a minor boom, which continued well into the decade. The return of servicemen contributed to the rise in economic activity through their demand for a wide range of durable and consumer goods. Finally, the formation of the first Mitchell Ministry (1919-1924), followed by those of Collier (1924-1930), ensured a continued emphasis on land settlement, now linked with massive immigration programmes. This was a period when British governments, facing adverse economic conditions in the aftermath of the war, were actively promoting the dispersion of the population throughout the British Empire, mainly through assisted passage arrangements. The opportunities these policies offered for large scale land development were especially attractive to Western Australia and the Mitchell government, in particular, vigorously pursued them. Between 1920 and 1929 nearly 44,000 immigrants arrived in Western Australia under the assisted migration programme, an annual rate not exceeded until after World War II.

After a wartime decline, the acreage under wheat resumed its upward trend in 1920, when 1.3 million acres were planted, and continued to climb to a record of just under 4 million acres in 1930. Railway construction, suspended in 1919, began again in 1923. By this time most of the first class land had been taken up so that new development was oriented mainly towards poorer areas further inland. Spur railways now extended to Kalannie and Kulja in the north and Newdegate and Pingrup in the south. The buoyant mood of the times conjured up a "3500 Farms Scheme" which envisaged the settlement of some 8 million acres of light lands mainly in the area south of Southern Cross and east of the

Newdegate railhead. However, the Commonwealth withdrew its support for this project when soil surveys revealed the hazardous nature of the enterprise.

*Returned soldiers
and group settlement*

Although the wheatbelt remained the principal focus of agricultural development, two other special schemes require mention, both implemented by the State in collaboration with the Commonwealth and British Governments. The first was a discharged soldiers settlement scheme which started to function in 1917 and was largely completed by 1922, thus falling principally within the tenure of Mitchell's Ministry. The scheme gave veterans absolute priority over other applicants in the allocation of land, as well as generous credit arrangements. It opened opportunities for the purchase of established farms selected by the serviceman himself, an option which proved most popular with the many veterans incapacitated in some way. The government also bought and subdivided for allocation under the scheme a number of large underutilised estates, such as the historic Peel Estate, already targeted under a long-standing closer settlement policy. By 1922, 4,665 servicemen had been settled under this scheme, most of them in the wheat belt. Some of these were British ex-servicemen whose passages had been paid under a concurrent British scheme.

The second scheme was on a much more ambitious scale. It followed the enactment of further legislation in the United Kingdom (the *Empire Settlement Act 1922*) which broadened the eligibility for assisted passages and enabled the British government to enter into cost sharing arrangements for comprehensive land development and settlement projects. Three years later the Federal and State governments signed a £34 million agreement with the British government to provide loan money for developmental purposes in Australia. Mitchell meanwhile had agreed to absorb 75,000 immigrants for settlement on wheat or dairy farms.

The scheme most closely associated with James "Moo-Cow" Mitchell was intended to follow the example set by wheat and achieve self-sufficiency in dairy products. Called the Group Settlement Scheme, it involved the clearance of land in the forest areas of the South West to establish some 6,000 dairy farms. Partial clearance of each farm was to be undertaken by groups of settlers (mainly British migrants) who then took possession of the farms through a ballot process.

While the discharged servicemen's scheme inflated farm prices and stored up trouble for the future, the group settlement scheme proved a costly failure largely because of the inexperience of the English migrants, the hard labour of forest clearance and the uneconomic size of holdings. The maximum number of farms established through group settlement was 2,442 and these eventually had to be consolidated into larger units to provide a

living for the settler. By the early 1930's only 1,710 farms survived as productive units after an expenditure of £6.3 million on development and reconstruction.

Nevertheless, small clusters of development survived at Manjimup, Pemberton, Northcliffe and other South West centres and the origin of dairy production as an important Western Australian primary industry dates from that time. So, too, does the "groupie" as an icon of rural Western Australia and the epitome of a "battler".

Other primary industries had mixed success during the 1920s. The work of the Imperial Wool Purchase Scheme ended in 1919 but the British Australia Wool Realisation Association was able to maintain reasonably stable prices until 1924. The timber industry expanded until 1927 when the value of exports reached a peak. Gold production continued until 1929 the decline which had begun in 1904. The industry was caught in a cost price squeeze allowing only the mining of the richest ore along the Golden Mile and to a lesser extent Big Bell and Norseman. The largest new venture during this period was the Wiluna group of mines. The Coolgardie Municipal Council was wound up in 1921, signalling the ascendancy of Kalgoorlie as the undisputed capital of the Eastern Goldfields, a development which had been increasingly apparent for many years.

Social progress

During the 1920s further social progress was evident across a wide field. The number of school enrolments continued to climb dramatically and, in keeping with the development policies of both Mitchell and Collier, the needs of rural communities received particular attention. In 1918 the Education Department had begun correspondence classes for children in the remotest parts of the State and on isolated wheat belt farms. One-teacher schools were still prominent (now serving group settlements also) although improvements in transport were diminishing their importance. In the first half of the decade, country high schools came on the scene - Northam (1921), Bunbury (1922), and Albany (1925) - with district schools as an interim solution. In 1926, the State's first agricultural college was founded at Muresk. By these means the educational disparities between town and country were gradually minimised.

Workers benefited from the long tenure of the Labor government from 1924 to 1930. One of Collier's earliest actions was to introduce a 44 hour week for railway employees and public servants (a high proportion of the work force) leading to extensions of the practice under subsequent State arbitration awards. In 1925 the Arbitration Court (now headed by a permanent President) won the right to determine wage policy and in the following year a State basic wage (£4.5s per week for males and £2.5s11d for females), payable to workers under State awards, was declared for the first time. The same legislation gave another

boost to technical education by extending to all trades the day release of apprentices. A new Workers Compensation Act substantially increased the scale already in operation and provided better protection from the effects of industrial diseases, with the expectation that this would benefit predominantly mine workers, the most exposed group. Linked with this, a State Government Insurance Office was established by administrative action in response to the high premiums being charged by private insurance companies.

Women continued their slow climb towards equal status with men. Through the *Qualification of Women Act* (1920) they gained complete political equality and the right to be selected to either House of the State Parliament. The legislation bore immediate fruit when Mrs Edith Cowan (Nationalist) won the West Perth Legislative Assembly seat at the 1921 general election, thereby becoming the first female member of any Australian parliament. Four years later May Holman became the first woman to represent Labor after winning the South West seat of Forrest which she held until her death in 1939. Further legislation in 1920 and 1926 placed the mother on an equal footing with the father in regard to the guardianship of children. Again, admission to the Bar was achieved through the *Women's Legal Status Act* (1923), although women were not admitted to jury service until 1957. Dr Roberta Jull, the first woman medical practitioner in the State, also became, in 1918, the first medical officer of schools in the Public Health Department and continued in that capacity until her retirement in 1928. It comes as no surprise that the twenties also saw the birth of the Country Women's Association to complement other women's organisations such as the Women's Service Guilds, the Western Australian Branch of the National Council of Women and the Karrakatta Club.

Technological advances Technological advances were starting to make significant improvements in standards of living throughout the State. Car registrations, for example, rose from only 4,181 in 1921 to 31,130 in 1930. Traffic became faster and State-wide, creating a need for improved roads. In 1925, a Main Roads Board was established and the following year the State began to benefit from special purpose grants for road construction under a Commonwealth-States Road Agreement.

In 1921 the airline which became MacRobertson Miller Airline (MMA) won a Commonwealth contract to carry mail between Geraldton and Derby and established the first regular air service in Australia. Radio transmissions began in 1924, the first pasteurised milk plant was built in 1925, "talkies" arrived in 1929, and regular airline flights between Perth and Adelaide began the same year.

Centenary celebrations There were many occasions during the thirty years covered by this brief review when the people of Perth and other centres came into the streets and public places, such as the Esplanade and

Forrest Place, to celebrate great events. At a time when the bonds of Empire were still very strong, many of these expressions of public joy were associated with royal visits, like those of the Duke and Duchess of Cornwall and York in 1901, the Prince of Wales in 1920, and the Duke and Duchess of York (later King George VI and Queen Elizabeth) in 1927.

Nothing quite matched the celebrations marking the centenary of the State in 1929. The crowded calendar of events extended over eight months, including sporting contests and racing carnivals, shows and exhibitions, river carnivals, fireworks displays, musical festivals, balls and tree planting ceremonies, such as the planting of Fraser Avenue in Kings Park. Massive public interest was aroused by a centennial air race from Sydney to Perth won by Captain H. C. Miller flying a De Havilland 9 aircraft with a handicap speed of 98 m.p.h.

The centrepiece of all these activities was a Perth City Council function on 12 August at the Town Hall where the Governor, Sir William Campion, read a message from the King raising the status of the city to that of a Lord Mayoralty with Mr J. T. Franklin, a builder and long-time councillor, as the first Lord Mayor. On the same occasion the governor unveiled a commemorative tablet on a wall of the Town Hall near the site of the foundation of Perth exactly one hundred years earlier .

As the celebrations ended, Western Australia approached another decade of its history. The crash of Wall Street in October 1929 signalled that it would be a harsh one, with depressed prices for wool, wheat and other products vital to the State's well-being, with the notable exception of gold. The future held the prospect of widespread rural indebtedness, abandoned farms, unemployment, relief works and painful structural adjustments, especially in the wheatbelt, before the conditions were restored for a resumption of economic progress.

Further Reading

Black, David (Ed), *The House on the Hill: A History of the Parliament of Western Australia, 1832-1990*. Published by the Parliament of Western Australia, Perth, 1991.

Gabbedy, J.P., *Group Settlement, Parts I and II*. University of Western Australia Press, 1988.

Oliver, Bobbie, *War and Peace in Western Australia: The Social and Political Impact of the Great War, 1914-1926*. University of Western Australia Press, 1995.

Stannage, C.T., (Ed), *A New History of Western Australia*. University of Western Australia Press, 1981.

Stannage, C.T., *The People of Perth: A Social History of Western Australia's Capital City*. Published by the Perth City Council, 1979.

CHRONOLOGY OF IMPORTANT EVENTS

- 1900 Large majority of Western Australians vote in favour of federation.
System of industrial conciliation and arbitration introduced.
- 1901 Proclamation of Commonwealth of Australia.
Federal (March) and State (April) elections.
- 1902 Completion of Fremantle harbour works.
Codification of Western Australia's criminal law.
- 1903 Formal opening of Goldfields Water Supply Scheme.
Prisons Act introduced far reaching reforms of prison administration.
- 1904 State elections. Henry Daglish formed Western Australia's first Labor government.
Creation of Anglican diocese of Bunbury.
- 1905 Passage of Aborigines Act which remained the cornerstone of Aboriginal administration until 1936.
- 1908 State elections.
- 1909 Survey of transcontinental railway from Kalgoorlie to Port Augusta completed.
- 1911 State elections. Labor Party wins landslide victory.
First federal census of the Commonwealth (Western Australia's population 282,114).
University of Western Australia established by Act of Parliament.
Opening of first government secondary school.
- 1912 Inauguration of State Shipping Service.
- 1913 Opening of University of Western Australia in temporary quarters.
Perth elevated to Roman Catholic archbishopric with Patrick Joseph Clune as first incumbent.
Beginning of construction of transcontinental railway from Kalgoorlie end.
- 1914 Outbreak of war in Europe (4 August) and sailing of first Western Australian troops.
State elections. Country Party wins first seats.
Bishop C.O. Riley elevated to Anglican archbishopric.
- 1916 First Commonwealth referendum on conscription.
- 1917 State elections.
Formation of Parliamentary Nationalist Party.
Second Commonwealth conscription referendum.
Opening of transcontinental railway.
- 1918 War in Europe ends (11 November).

- 1919 Outbreak of pneumonic influenza causes 540 deaths.
Establishment of Discharged Soldiers Land Settlement Board.
- 1920 Qualification of Women Act gave women complete political equality.
- 1921 General elections. Election to Assembly of Australia's first female member of Parliament.
Award of contract for Australia's first commercial airline service from Geraldton to Derby.
Second Commonwealth census. Western Australia's population reaches 332,732.
Inauguration of Group Settlement Scheme.
- 1922 Electoral Act provides for appointment of three Electoral Commissioners.
- 1923 Agreement signed with United Kingdom providing for 75,000 emigrants to Western Australia.
Passage of Women's Legal Status Act.
- 1924 State elections.
Forty four hour week granted to railway workers and most government employees.
Westralian Farmers established State's first radio station.
- 1925 Major migration agreement concluded between the Commonwealth, States and United Kingdom.
- 1926 State basic wage declared for first time.
- 1927 State elections.
Financial agreement with Commonwealth transfers State debt to Commonwealth and introduces coordinated borrowing arrangements.
- 1928 Electoral Act effects electoral redistribution for the first time since 1910.
First Australian town planning Act passed by State Parliament.
- 1929 Western Australia celebrates its centenary.
City of Perth declared a Lord Mayoralty and Fremantle achieves city status.
Beginning of regular airline flights between Perth and Adelaide.
Crash of Wall Street stock market (October).
- 1930 State elections.
Onset of Great Depression.

ENVIRONMENT

Chapter 2

ENVIRONMENT

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ENVIRONMENT

Physical Features

Western Australia is the largest Australian State. Only the narrow Timor Sea separates its northern coastline from equatorial islands of the Indonesian archipelago; to the south is the Southern Ocean and Antarctica.

Within this vast area, climates range from the monsoonal tropics of the north through arid northern coastal and inland areas to temperate zones in the south. Environments vary from the rugged beauty of the far north, the breathtaking Hamersley Range, stunning red deserts, vast areas of productive agricultural land and magnificent karri eucalypt forests. Along the coastline are innumerable beaches, coral reefs of great beauty and waters rich in marine life. The most attractive and important features of the land and coastline are protected in national and marine parks.

Physical Features of Western Australia

Area: 2,525,500 sq km	Land Distances: North-South 2,391 km East-West 1,621 km
Length of Coastline: approximately 12,500 km	Longest River: Gascoyne River 865 km
Highest Point: Mt Meharry 1,251 metres	Largest Desert: Great Sandy Desert 258,000 sq km
Most Northerly Point: Cape Londonderry latitude 13° 44' 36" longitude 126° 47' 43"	Largest Island: Dirk Hartog Island 61,338 ha
Most Southerly Point: Forbay Head latitude 35° 8' 10" longitude 117° 38' 0"	Largest Lake: Lake MacKay 3,550 sq km only 2750 sq km is in WA
Highest Town: Tom Price 740 metres	Highest Waterfall: King George Falls approximately 80 metres

Source: Department of Land Administration

Climate

Contributed by the Western Australian Regional Office of the Bureau of Meteorology (BOM). For further description of the Bureau see page 42 of the 1993 Western Australian Year Book.

Western Australia is a region of several different climate zones, ranging from tropical weather of the north to the semi-arid interior, and the Mediterranean style climate of the Southwest. Most of the State is a plateau between 300 and 600 metres above sea level and the main influence of topography is seen in the general decrease of rainfall with increasing distance from the coast.

TABLE 2.1 - MAXIMUM TEMPERATURES FOR SELECTED W.A. WEATHER STATIONS, 1994 VERSUS LONG TERM AVERAGES (celsius)

Station	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Kununurra	37.0	34.0	34.5	34.8	32.4	30.1	29.6	30.4	35.6	38.5	39.5	36.3
Average	36.4	35.5	35.3	35.5	32.9	30.5	30.2	33.6	36.4	38.3	38.8	38.1
Broome	33.7	32.9	34.9	35.5	33.1	29.4	30.2	31.6	32.3	32.6	34.3	33.9
Average	33.4	33.0	34.0	34.2	31.4	29.1	28.7	30.2	31.9	32.9	33.6	34.0
Port Hedland	37.8	36.4	37.7	36.4	32.6	27.8	28.8	30.5	34.4	36.3	38.8	37.2
Average	36.3	36.2	36.7	35.0	30.3	27.4	26.8	28.8	32.2	34.5	36.2	36.6
Learmonth	40.1	36.9	36.1	34.7	30.5	24.9	25.7	27.4	30.5	34.6	37.1	38.4
Average	37.9	37.7	36.4	33.2	28.4	24.7	24.0	26.0	29.3	32.1	34.2	36.8
Carnarvon	31.7	31.1	33.1	32.0	28.9	24.0	23.5	25.2	25.4	26.7	29.4	30.8
Average	31.2	32.5	31.4	28.8	25.9	23.2	22.0	22.7	24.4	25.7	27.3	29.0
Newman	41.1	36.7	35.8	32.5	28.6	22.9	24.1	26.7	31.6	35.5	37.5	38.2
Average	38.4	37.1	35.9	31.7	26.1	22.4	22.2	24.7	29.3	33.5	36.6	38.5
Meekatharra	40.2	35.0	35.6	31.8	27.2	20.3	22.0	24.1	28.6	30.8	34.2	37.6
Average	38.0	36.6	34.6	29.2	23.4	19.4	18.6	21.0	25.4	29.2	33.1	36.3
Geraldton	30.3	30.9	32.2	29.8	26.3	21.2	20.4	21.5	23.8	25.1	28.6	30.9
Average	31.7	32.5	30.9	27.4	23.7	20.7	19.4	20.0	22.0	24.3	27.0	29.3
Perth Airport	30.9	30.2	31.6	28.0	23.3	18.6	18.6	19.5	21.4	23.1	27.7	31.0
Average	31.4	31.7	29.5	25.2	21.4	18.7	17.6	18.3	20.0	22.3	25.4	28.5
Albany Airport	24.3	24.1	25.7	24.2	19.7	16.5	16.2	16.8	18.0	18.3	21.7	24.0
Average	25.2	25.1	24.3	21.6	18.7	16.6	15.7	15.9	17.4	18.8	20.8	23.5
Merredin	34.5	29.9	33.5	28.6	23.1	17.8	18.0	18.6	22.7	25.5	29.9	33.3
Average	33.4	32.8	29.9	25.0	20.1	17.0	16.0	16.9	20.3	24.4	27.8	31.8
Narrogin	31.2	28.2	30.4	26.2	20.1	15.9	15.4	16.6	18.9	22.2	27.7	31.0
Average	30.8	30.0	27.2	22.5	18.3	15.3	14.6	15.1	17.3	21.2	24.9	28.9
Esperance	24.9	25.0	26.6	25.1	22.1	18.7	18.9	19.0	20.1	20.7	23.7	25.7
Average	26.2	26.4	25.2	23.1	20.2	17.8	17.0	17.7	19.4	21.1	23.0	24.7
Kalgoorlie	34.7	29.8	32.3	28.1	23.6	18.2	20.2	19.9	23.3	26.7	30.3	33.2
Average	33.6	31.9	29.6	25.1	20.4	17.4	16.4	18.3	22.1	25.6	28.9	32.0
Eucla	26.4	25.2	29.6	26.2	23.1	19.7	21.0	20.7	21.5	25.5	24.5	28.4
Average	25.6	25.4	24.9	23.4	20.9	18.7	17.9	18.9	20.9	22.7	23.5	24.4

Source: Bureau of Meteorology

The weather is controlled largely by the movement of a belt of high pressure systems. This belt of highs separates the southeast trade winds to the north from the westerlies to the south.

The highs are displaced northward in winter allowing the moist westerly winds to extend over southern areas. Cold fronts and associated low pressure systems embedded in the westerlies produce most of the annual rainfall for southern districts including agricultural regions during the cooler months. Dry south-easterlies predominate further north, and only cloud bands from the north-west that occasionally extend over the Pilbara, Gascoyne and interior parts of the State producing any significant rains.

TABLE 2.2 - MINIMUM TEMPERATURES FOR SELECTED WA WEATHER STATIONS, 1994 VERSUS LONG TERM AVERAGES (celsius)

Station	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Kununurra	25.3	24.6	22.2	20.2	17.8	14.6	13.0	14.6	18.0	22.2	24.7	25.1
Average	25.1	24.9	24.1	21.3	19.1	15.9	15.0	17.5	20.8	23.7	25.4	25.7
Broome	26.4	26.1	23.0	19.1	14.8	12.2	10.3	10.8	16.6	23.0	24.3	26.1
Average	26.2	25.9	25.4	22.6	18.4	15.2	13.6	15.0	18.4	22.2	24.9	26.4
Port Hedland	26.4	26.0	23.6	18.5	15.6	11.9	10.7	12.0	14.8	20.0	21.4	25.7
Average	25.4	25.3	24.3	21.1	17.1	13.9	12.0	12.9	15.2	17.9	21.1	23.7
Learmonth	22.6	22.9	22.3	19.0	14.9	11.3	9.8	12.2	14.0	17.0	18.6	21.8
Average	23.0	24.3	23.1	20.6	16.1	13.4	11.4	12.5	14.0	16.2	18.4	20.6
Carnarvon	21.6	22.4	22.6	19.5	15.3	12.4	10.3	12.7	14.9	16.2	18.9	22.0
Average	22.4	23.3	22.0	19.0	14.8	12.4	11.0	11.6	13.9	16.3	18.5	20.4
Newman	27.3	25.4	21.5	16.1	12.7	8.2	7.3	10.6	15.3	20.2	23.1	25.0
Average	25.0	24.3	22.3	18.3	13.0	9.2	7.8	10.1	13.6	17.8	21.3	23.9
Meekatharra	25.0	22.9	21.3	17.0	12.8	8.3	7.7	10.4	13.4	16.0	19.5	23.6
Average	24.1	23.6	21.5	17.0	11.8	8.7	7.3	8.4	11.5	14.8	18.5	21.9
Geraldton	16.5	18.1	17.9	15.5	13.6	10.6	9.7	9.6	10.1	11.2	14.2	17.4
Average	18.3	19.2	17.9	15.3	12.7	10.9	9.3	8.8	9.2	10.9	13.7	16.2
Perth Airport	17.1	16.8	16.8	14.5	11.4	9.2	9.4	8.9	10.2	10.8	14.7	17.0
Average	16.7	17.4	15.7	12.7	10.2	9.0	8.0	7.9	8.8	10.1	12.4	14.6
Albany Airport	13.5	13.8	13.8	11.7	10.3	8.2	8.6	7.5	8.0	9.1	10.5	12.4
Average	13.5	14.4	13.3	11.6	9.8	8.1	7.4	7.3	7.9	9.0	10.6	12.3
Merredin	16.3	15.4	16.6	12.1	9.1	5.2	6.3	6.7	7.9	9.0	13.6	16.4
Average	17.6	17.9	16.1	12.8	8.7	6.9	5.5	5.4	6.7	9.5	12.7	15.8
Narrogin	13.2	12.6	14.0	11.3	8.4	6.2	6.6	5.9	6.2	7.4	11.3	13.1
Average	14.6	14.9	13.6	10.9	8.2	7.1	5.8	5.6	6.3	8.2	10.6	12.9
Esperance	14.8	15.6	15.3	13.1	11.4	8.3	9.1	8.6	10.0	10.4	12.2	15.0
Average	15.5	15.9	14.9	13.1	10.8	8.9	8.1	8.5	9.5	10.7	12.7	14.4
Kalgoorlie	17.6	16.7	16.8	12.5	9.8	5.2	5.0	7.3	9.1	11.4	14.7	17.9
Average	18.1	17.6	16.0	12.4	8.4	6.1	4.7	5.4	7.8	10.8	13.9	16.5
Eucla	15.4	16.8	16.3	12.1	11.2	7.9	6.8	8.3	8.8	11.3	12.6	18.5
Average	16.5	16.8	15.9	13.4	10.4	8.2	7.1	7.4	9.0	11.1	13.2	14.9

Source: Bureau of Meteorology

As summer approaches, the highs migrate further south and most of the State is affected by easterly winds. These winds originate from the hot, dry interior producing high temperatures and low humidity levels in western areas. Near the coast, welcome relief from the hot weather comes from the reliable seabreeze in the afternoon. The seabreeze persists into the evening making for pleasant summer nights.

In the north, the monsoon develops resulting in thunderstorm activity and the occasional tropical cyclone. Cyclones usually develop well offshore and sometimes threaten communities with strong winds, heavy rain, and inundation of coastal areas by storm surge. The coastline near Port Hedland is the most susceptible area with one cyclone expected every two years. While many systems fade over ocean waters, cyclones moving inland gradually weaken into rain bearing depressions and even though floods often occur, most of the rain is welcome. The heaviest rainfall ever recorded in one day in the State was 747 mm at Whim Creek from a cyclone in 1898. The highest wind gust ever recorded was 259 km/h at Mardie in 1975 due to Tropical Cyclone Trixie. That same system was responsible for major flooding further south in the Gascoyne and Goldfields region. Cyclones that travel southwards down the west coast can pose a serious threat to more heavily populated communities. Extreme fire weather conditions can occur over the south-west of the State due to the strong and hot northerly winds in such events.

TABLE 2.3 – RAINFALL FOR SELECTED WA WEATHER STATIONS: 1990-94 (Millimetres)

Station	1990	1991	1992	1993	1994	Mean
Kununurra	451	604	410	953	1003	744
Halls Creek	497	811	217	1039	593	522
Broome	195	766	132	629	435	550
Port Hedland	97	213	119	405	225	302
Learmonth	267	210	256	239	219	266
Carnarvon	204	251	371	165	134	223
Newman	197	200	306	260	167	295
Meekatharra	209	115	377	170	77	219
Geraldton	429	495	444	384	319	470
Perth Airport	705	903	960	666	609	799
Albany Town	977	874	1097	878	813	937
Merredin	355	309	462	324	193	326
Narrogin	556	508	580	524	352	506
Katanning	440	502	578	510	347	483
Esperance	568	466	824	520	404	612
Kalgoorlie	300	168	529	326	245	261

Source: Bureau of Meteorology

The hottest time in the Kimberley is in November and December before the onset of the monsoon. Further south, January and February are the hottest months. Maximum temperatures in excess of 40°C have been recorded throughout the State except the far southwest coast. The highest temperature ever recorded has been 50.7°C at Eucla. Coastal temperatures are greatly modified by the occurrence of the seabreeze.

During the winter months, average maximum temperatures range from above 30°C in the Kimberley to 14-15°C near the south coast. Overnight minima are coldest in southern inland areas where averages of 4-6°C are experienced. The lowest temperature ever recorded has been -6.7°C at Booylgoo Springs in the Goldfields in 1969.

1994 WA Weather Summary

Generally, rainfall for 1994 was average to below average and only a few small areas received above average rainfall. Most of the south-west of Western Australia experienced below average rainfall in all months except May, and many locations registered record low rainfall in January, April, July and December. The highest annual rainfall was 1335.2 mm at Kuri Bay in the Kimberley and the lowest was 64.2 mm at Mount Hale in the Gascoyne.

Eight tropical cyclones occurred in the Western Australian region in 1994. Seven moved over waters north of the State between January and April. Severe Tropical Cyclone Annette, formed to the north-west of Broome on 15 December, crossed over Mandora at 1600 WST on the 18th. Extensive damage and some stock losses were experienced at Mandora where the maximum recorded wind gust was 217 km/h. Wallal Station and Sandfire Roadhouse also suffered damage to buildings. Overall, Tropical Cyclone Annette brought above average December rainfall to the eastern two-thirds of the State.

The wet season in the north was enhanced by a tropical low which formed off the coast near Broome on 17 February, crossed the coast near Wallal on the 20th, then weakened over the Gascoyne on the 25th. The low brought extensive rain to the Kimberley, De Grey, Fortescue, Gascoyne, Murchison and adjacent northern Wheatbelt. This resulted in some flooding and the Gascoyne River flowed for the first time in several years.

Several severe summer thunderstorms occurred in January and February, producing 141 km/h wind gusts at Broome and Kalgoorlie and a 100 km/h gust at Kununurra. There was minor damage to the Ansett terminal at Kalgoorlie Airport, and damage to trees and buildings at Kununurra.

On 24 March an influx of cloud and very moist air over the Southwest from the remnants of Tropical Cyclone Sharon, following a prolonged dry spell, resulted in widespread power

blackouts. The worst affected area were Perth city and suburbs. Dust, which had accumulated during the dry period, was moistened by the high humidity causing the insulators on power lines to fail. Perth was without power for about five hours.

May, June and August saw a number of intense low pressure systems pass just south of the State. These systems brought periods of sustained strong to gale force winds, and severe thunderstorms producing hail and several tornadoes to the Southwest. The most damaging of these systems occurred on 23 and 24 May. Pre-frontal north-westerly winds caused dust storms from Mullewa to the Goldfields and extensive damage to western coastal areas. Power blackouts occurred mainly in the Perth metropolitan area during a period of 17 hours where winds exceeded 56 km/h over the Southwest and gusts as high as 143 km/h were recorded at Swanbourne and Fremantle. Four tornadoes were reported in the Southwest in a similar but less intense event on 29 May.

A northwest cloudband brought good rain to the Southwest Land Division in July. A couple of strong cold fronts crossed the Southwest during September bringing further rain to agricultural areas. In the latter half of the month, patchy thunderstorm activity began to occur in the west coast trough. On the 4th and 6th of October, low overnight temperatures in the Wheatbelt, particularly in the Great Southern, resulted in frost damage to susceptible crops.

West coast troughs became more active in October and seasonal thunderstorm activity commenced in the Kimberley. Thunderstorms produced damaging hail and winds at several centres during October to December. A dust devil at Wongan Hills on 30 November unroofed two buildings and damaged a water tank. Hail of three cm diameter damaged trees and buildings, and flattened crops near Carnamah on 17 December.

For Perth, the annual rainfall (739.8 mm) was below average (871 mm), despite slightly above average winter rainfall. Rain fell on a total of 89 days, the lowest number since 1969 (87 rain days). November 1993 to April 1994 was the driest six-month period on record in Perth with only 19.2 mm of rain. The yearly mean maximum temperature for Perth was 24.7°C, (0.9°C above average), and the yearly mean minimum temperature was 12.8°C, (0.6°C above average). The highest recorded temperature was 41.1°C on 31 January and the lowest recorded temperature was 2.2°C on 6 October. The lowest maximum was 13.6°C on 10 July and the highest minimum was 23.9°C on 21 January.

TROPICAL CYCLONE BOBBY 20 - 27 February 1995

An area of low pressure off the north-west coast was named Tropical Cyclone Bobby at 7 am on 22 February 1995 and at the time was estimated to be 500 kilometres north of Port Hedland, moving west-south-west parallel to the coast. By the 23rd Bobby began to drift slowly towards the south. Some minor damage was reported at Karratha as a result of gales on the 23rd and 24th. Some 300 residents at Karratha and the occupants of three aboriginal communities near Roebourne were also moved to higher ground given the possibility that some flooding may have occurred.

At around midnight on the 24th Bobby, rated as a category 4 cyclone, crossed the coast near Onslow lashing the town with torrential rains and destructive winds. In the 48 hours to 9 am on the 26th a massive 425 mm of rain was recorded in Onslow. Twenty buildings suffered minor roof damage as the winds relentlessly battered the town, reaching a maximum of 183 km/h. The lowest recorded Mean Sea Level pressure at Onslow was 952 hPa. Two prawn trawlers were capsized off Onslow with the loss of all seven crew members.

On the morning of the 26th Bobby passed close to Gascoyne Junction and was weakening, with the last cyclone warning message being issued at 10:00 am. Residents of the town were evacuated as the rivers in the area began to rise and flood warning advices were issued for the Gascoyne, Lyons, Wooramel and Murchison Rivers.

The rain bearing depression continued to bring flooding rains to the Gascoyne, Murchison and Goldfields districts as its path turned towards the east. Some fences were blown over in Cue. Minor flooding was reported at Kalgoorlie and a significant number of trucks were held up at Norseman as the Eyre Highway was impassable and the Trans-Australian rail line was also cut. The Gascoyne River flooded through the Carnarvon area, resulting in the closure of the North West Coastal Highway east of the town. Three caravan parks and one house were evacuated on the 28th, a lot of topsoil was removed from the horticultural areas and the banana plantations were damaged.

Parts of the eastern agricultural areas also received significant rains associated with the remnants of Bobby during the 26th and 27th, in particular Esperance (41 mm), Mouroubra (110 mm), and Mukinbudin (44 mm). Other notable rainfall registrations in the 72 hours to 9 am on the 27th were reported from Red Hill (204 mm), Murchison (118 mm), Erong (143 mm), Mt Magnet (157 mm), Cashmere Downs (347 mm) and Menzies (274 mm). By the morning of the 28th the weakening low was approximately 300 km north of Eucla and moving east.

Flora

Contributed by the Department of Conservation and Land Management (CALM)

Western Australia's flora enjoys world renown for its richness, uniqueness and colourful displays. There are estimated to be more than 12,000 species unique to Western Australia, of which just under 8,000 of these have been named. Some 80 per cent of the known plants in the south-west are found nowhere else in the world, and about 2,000 species are either endangered, vulnerable, rare or geographically restricted.

According to a recent assessment, of the Australian total of rare or threatened plant taxa (species, subspecies or varieties) Western Australia has 43 per cent (1,442) with 83 per cent being restricted to the south-west. About 1,500 species are grown commercially for the wildflower, seed nursery, beekeeping and timber industries.

Threats to Western Australia's flora typically come from a wide range of often interrelated events. These include continued clearing of land, invasive weeds, grazing, pests and disease, inappropriate fire regimes, recreation pressures, roadworks and urban development. Studies on the geographical distribution and biology of rare or threatened species show that their vulnerability has been due mostly to the activities of European settlement. Sometimes, rarity is due to specific habitat requirements.

**TABLE 2.4 - CALM - MANAGED LANDS AND WATERS
JUNE 1995**

<i>Tenure Classification</i>	<i>Area (ha)</i>
National Park	4,870,828
Conservation Park	117,253
Nature Reserve	10,781,954
Marine Park	1,013,940
Marine Nature Reserve	132,000
State Forest	1,724,882
Timber Reserve	141,487
Reserve (a) —	
Freehold	33,688
Leasehold	1,003,716
Miscellaneous	12,971
Section 5(g)	232,167
Total	20,064,886

(a) Includes land reserved under the Land Act (1933), is not a park or reserve, and which was administered by the National Parks Authority.

Source: CALM Information Management Branch

TABLE 2.5 - NATIONAL PARKS IN WESTERN AUSTRALIA
1995

<i>National Park</i>	<i>Area (ha)</i>	<i>National Park</i>	<i>Area (ha)</i>
Alexander Morrison	8,500	Millstream-Chichester	199,736
Avon Valley	4,366	Moore River	17,540
Badgingarra	13,121	Mt Augustus	9,168
Beedelup	1,786	Mt Frankland	30,830
Boorabbin	26,000	Nambung	18,362
Brockman	49	Neerabup	1,069
Cape Arid	279,382	Peak Charles	39,959
Cape Le Grand	31,578	Porongurup	2,511
Cape Range	50,581	Purnululu (Bungle Bungle)	239,723
Collier Range	235,162	Rudall River	1,283,706
D'Entrecasteaux	114,566	Scott	3,273
Drovers Cave	2,681	Serpentine	4,363
Drysdale River	448,264	Shannon	52,598
Eucla	3,342	Sir James Mitchell	497
Fitzgerald River	329,039	Stirling Range	115,920
Francois Peron	52,529	Stokes	9,726
Frank Hann	67,550	Tathra	4,322
Geikie Gorge	3,136	Torndirrup	3,936
Gloucester	875	Tuart Forest	2,049
Goongarrie	60,397	Tunnel Creek	91
Gooseberry Hill	33	Walpole Nornalup	15,861
Greenmount	58	Walyunga	1,812
Hassell	1,265	Warren	2,982
Hidden Valley	2,068	Watheroo	44,474
John Forrest	2,676	Waychinicup	3,982
Kalamunda	375	West Cape Howe	3,517
Kalbarri	183,004	William Bay	1,734
Karijini (Hamersely Range)	627,445	Windjana Gorge	2,134
Kennedy Range	141,660	Wolf Creek Crater	1,460
Leeuwin-Naturaliste	19,119	Yalgorup	13,001
Lesmurdic Falls	56	Yanchep	2,842
Lesueur	26,987	Total	4,870,828

Source: CALM

The distribution of plant species across Western Australia is uneven. Geologically, this region has been isolated from eastern Australia for about 30 million years. The flora has undergone immense evolutionary change in a short geological period, and the level of richness in the area (especially in the heathlands and shrublands) is equivalent to that of tropical rainforest areas, such as the Philippines Archipelago or Malaysia.

Flora Conservation

Adequate conservation of flora involves protecting all levels of diversity and, therefore, keeping combinations of landscape, communities and species. This can be achieved in a well designed and integrated reserve network combined with sensitive management of land outside reserves.

Conservation of whole plant communities also helps conserve most of the fauna associated with that community (for example, pollinators and herbivores). If flora conservation aims only to

protect individual species the complementary benefits to fauna conservation will not be achieved (and vice versa).

Only limited information is available on the proportion of species and the samples of plant communities that are in conservation reserves. In the Perth region approximately 8 per cent of the species of the region have not been located in existing reserves. About 70 per cent of threatened flora populations occur outside the reserves network.

Flora Conservation Outside Reserves

Many areas of land outside the formal system of conservation reserves can make a substantial contribution to nature conservation. These include reserves that are managed for other purposes (for example, water, timber, or road or rail reserves), unmanaged reserves (for example, stock routes, undeveloped townsites, or ancillary reserves), the pastoral country, farm bushland remnants, aboriginal lands, and other undeveloped private land (for example, urban bush areas).

Flora Research

Knowing how many species exist and understanding their distribution, abundance and survival requirements is basic to other research into flora and fauna conservation. It is estimated that around 30 per cent of the State's vascular plant species are yet to be scientifically described and named. CALM's Herbarium maintains a database of all the names of Western Australian plants for which there are identified voucher specimens in the State Collection. This database is fundamental because it provides the current names of species and their variants to related databases.

In addition to a names database, the Herbarium is completing the computer recording of all its 350,000 specimen holdings. For each specimen, where full information is available, there is a precise locality, notes on soil type, associated vegetation, date of collection and details of the collector, and, from the names database, the current name of the species. Thus, a vast amount of data about a species and about the places where specimens were collected can be coupled with data on geology, climate, land tenure or other geographic information, to give a comprehensive tool for conservation of the State's flora.

The flora collection represents a small sample of the State's entire flora. Most specimens are of vascular plants as very little is known about the algae, fungi, lichens and bryophytes.

CALM, through its Bioresources Conservation Research Program, is actively researching the State's threatened flora. Its major efforts include surveying, assessing the conservation status and providing management guidelines for rare and threatened flora, and providing life history, genetic and ecological data on the most endangered species.

Currently, wildlife management programs for rare and threatened flora have been completed for the Merredin District and the Swan Region. Similar area based programs are underway for the Albany, Esperance, Katanning, Narrogin and Moora districts and the Central and Southern Forest Regions. Within the next five years completed wildlife management programs for rare and threatened flora will probably cover most of the species rich South West Botanical Province.

Conservation

Contributed by CALM

National Parks

National parks are for wildlife and landscape conservation, scientific study, preservation of features of archaeological, historic or scientific interest, and enjoyment by the public. They have national or international significance for scenic, cultural or biological value.

The area of the 63 national parks as at 30 June 1995 was 4,870,828 hectares.

Major changes to the national park estate consisted of additions to Frank Hann National park (6,146 ha) resulting from area recalculation; Purnululu National park (31,000 ha) added from adjoining Conservation reserve, and excision from Kalbarri National park (3,046 ha) required for local council infrastructure.

Conservation Parks

Conservation parks have the same purposes as national parks, but they do not have the same national or international significance. They have significant local or regional value for conservation and recreation.

The area of conservation parks as at 30 June 1995 was 117,253 ha, representing an increase of 30,134 ha in 1994-95. Notable additions to this category were Wandoo reserve (29,765 ha) and Lake Leschenaultia area (432 ha).

Nature Reserves

Nature reserves are for wildlife and landscape conservation, scientific study, and preservation of features of archaeological, historic or scientific interest. Wildlife values may not be commercially exploited, and recreation which does not harm natural ecosystems is allowed.

The area of natural reserves as at 30 June 1995 was 10,781,954 ha representing an increase of 12,255 ha in 1994-95. Notable additions were: Leda (439 ha), Scott Reef (11,542 ha) being correction to original gazettal area, and an unnamed reserve in Kimberley region (3,547 ha).

State Forests

State forests are managed for multiple purposes, including water catchment protection, recreation, timber production on a sustained yield basis, and conservation. Provision is also made for public utilities and mineral production, where these activities are imposed.

Within State forests, designated areas are managed for specific purposes, such as conservation or optimum yield of exotic plantings.

The area of State forest as at 30 June 1995 was 1,724,882 ha, a decrease of 24,001 ha for the year. The major decreases were the excisions of 23,347 ha from State Forest 13 for reservation of Wandoo Conservation Park, and area of 206 ha from State Forest 65 for Ellenbrook subdivision, and the revocation of State Forest 68 for reservation of Conservation Park (Lake Leschenaultia).

Timber Reserves

Timber reserves declared under the CALM Act are managed on the same basis as State forests. The category is transitional; as reserves are evaluated they may be changed to a more appropriate tenure, such as State forest or nature reserve.

The area of timber reserves as at 30 June 1995 was 141,487 ha. There were no changes during the year.

Marine Parks and Reserves

Marine parks are managed for marine conservation and recreation, with areas zoned for commercial fishing on a sustained yield basis. Marine nature reserves are managed for the conservation of marine and terrestrial flora and fauna and their habitats. Fishing and collecting are not permitted.

In June 1995, the area of marine parks comprised approximately 1,013,940 hectares. The area of marine nature reserves at the same period was approximately 132,000 hectares. There were no changes during the year.

5 (g) Reserves

Within the meaning of the CALM Act, land categorised as 5(g) reserve is land reserved under the *Land Act* (1993) which is vested in the NPNCA or the LFC. These reserves are not national park, conservation park, nature reserve or marine reserve. Immediately before the commencement of the CALM Act some were vested in, or under the control and management of, the National Parks Authority but not as a national park, e.g. Matilda bay Reserve. Predominantly they have a conservation/recreation purpose.

The area of 5(g) reserves as at 30 June 1995 was 232,167 ha. The major decrease was due to an excision of 31,000 ha, which was added to Purnululu National Park. Other additions resulted in the net decrease for the year being 25,282 ha.

WILDFLOWER HARVESTING

Contribution by CALM

Flora harvesting in Western Australia is a significant multi million dollar industry, estimated to be worth about \$16.9 million in 1991/92. Native wildflowers are estimated to have an export value of approximately \$14.4 million of which approximately \$5.8 million was from bushpicked wildflowers and foliage (from both Crown and private natural stands). There are no data available on the value of the seed harvesting industry. In 1993/94 there were a total of 645 licensed commercial Crown land flora pickers, and 430 private property producers licensed to sell native flora.

Under the *Conservation and Land Management Act 1984*, the Department of Conservation and Land Management (CALM) is responsible for the conservation and management of protected flora throughout Western Australia, and for administration of the *Wildlife Conservation Act 1950*. Amendments to the *Conservation and Land Management Act* in 1993 gave CALM the statutory authority to promote research on, and encourage the use of, flora for therapeutic, scientific or horticultural purposes. The amendments also give the Western Australian Minister for the Environment and the Executive Director of CALM the powers to control the issue of licences for the purpose of developing the potential of products for therapeutic, scientific or horticultural purposes. These powers include the right to provide an exclusive licence.

Management of the wildflower or flora harvesting industry is conducted pursuant to a management program prepared by CALM and approved by both the State and Commonwealth Ministers for the Environment. This management program provides for the harvesting of parts of plants (seeds, stems, foliage and flowers) of protected flora, and also the harvesting of whole plants of protected flora in CALM approved salvage operations, from Western Australia for commercial purposes.

Management of the flora industry involves licensing to control; what flora/parts of flora are taken, where they may be taken, how they are taken; and, in the case of flora taken from private property, the sale of the flora. There are also licence endorsements which give further precise control of; specific localities where flora may be taken; and/or specific taxa that may be taken by particular licensees. Quotas may also be used to set an upper limit on the quantities of protected flora that may be taken or sold. The principal objective of management is to manage the commercial harvesting of protected flora to ensure that harvesting is undertaken in a manner that does not jeopardise the conservation of the taxon being harvested or, in the case of Crown land, the conservation values of the land.

Fauna

Contributed by CALM

Mammals

In Western Australia, 147 native mammal species are found. Two species of marine mammal, the Australian Sea-lion and the New Zealand Fur-seal, are included in this number. In addition, the Leopard Seal, 19 species of whales, 16 species of dolphin and the Dugong have been recorded in Western Australian waters. Twenty-four species of mammals, including the Honey Possum, the Kimberley Rock-rat and the Western Brush Wallaby, are found only in Western Australia.

Status

Terrestrial Mammals

Western Australia's native mammal numbers have declined markedly since European settlement. Eleven species have become extinct and another 28 are considered threatened. Research has shown that these mammals are predominantly non-flying and medium sized, weigh between 35 and 5,500 grams and are termed 'Critical Weight Range' mammals. Extinctions and declines have occurred mainly in the arid and semi-arid parts of the State. Marsupials and rodents have been most affected with 38 species listed as rare or likely to become extinct.

The timing of the decline is difficult to determine. However, available information suggests that mammals, particularly rodents and some of the wheatbelt marsupials, began to decline in the late nineteenth century, while the arid and semi-arid species persisted until the 1930s and 1950s.

Following European settlement, declines occurred when grazing stock and rabbits were introduced, large areas of land were cleared for agriculture, and predators, particularly foxes and cats, were introduced. In arid and semi-arid areas, where native ground dwelling mammals were adapted to the harsh conditions, the introduced species and changes in fire regimes had a devastating effect. Very few native species have benefited from the changes brought by European settlement. Red Kangaroos are one exception; their numbers appear to have increased in some parts of the pastoral districts because of the increased availability of water.

Marine Mammals

The New Zealand Fur-seal (*Arctocephalus forsteri*) and the Australian Sea-lion (*Neophoca cinerea*) breed in Western Australia and were heavily exploited by sealers when the State was being developed. While it was feared for many years the populations had drastically declined, it was not until 1990 that the first thorough census of these species was undertaken in Western Australia. Surveys during 1990 and 1991 recorded about 3,100 Australian Sea-lions and 5,700 New Zealand Fur-seals around the Western Australian coast. New Zealand Fur-seals breed on 16

islands while Australian Sea-lions breed on 20 islands off the south coast, three islands in Jurien Bay and the Abrolhos Islands.

The two main whale species found along the Western Australian coast are the Humpback Whale (*Megaptera novaeangliae*) and the Southern Right Whale (*Eubalena australis*).

Southern Right Whales were so heavily exploited in Western Australia's southern waters between the 1830s and 1860s that the population almost became extinct. The first reported sighting this century was in 1955, involving a single cow and calf. An ongoing monitoring program from 1976 has shown the population to be steadily recovering with 91 individuals sighted in 1985.

Humpback Whales were hunted off Western Australia between 1912 to 1963, with at least 30,000 taken between 1934-63. It has been estimated that the population when whaling ceased in 1963 was down from a pre-harvest level of 15,000 to about 800. Western Australian Humpback Whale numbers have increased significantly since whaling ceased and current estimates show the population to be about 3,000. Sperm Whales were also hunted off Western Australia until 1978.

Conservation Terrestrial Mammals

Mammal conservation depends on significant suitable habitat areas being maintained and control of introduced competitors or predators. Important terrestrial reserves for mammals conservation currently include Bernier, Dorre and Barrow Islands, Perup, Tutanning, Boyagin and Prince Regent Nature Reserves, Drysdale River and Fitzgerald River National Parks and Dryandra Woodland. It is critical that species requirements are researched so that habitat areas can be managed appropriately.

Recovery plans are being written for threatened species to specify actions to ensure the survival of each species, using habitat and population management strategies determined by prior research.

Habitat management strategies include special fire regimes and guidelines to harvest timber, to manage public use of strategic areas, and to create vegetated corridors to link isolated habitats. For instance, research in the southern jarrah forest has shown that the dense thickets required by Tammar Wallabies for protection from fox predation thin out after long periods without fire. Prescribed burning is now used in certain areas to regenerate those thickets as their value to Tammars declines.

Marine Mammals

Marine mammals have not suffered the same declines as the land dwelling species. However, populations of the Australian Sea-lion, New Zealand Fur-seal, Humpback Whale, Sperm Whale and Southern Right Whale have been considerably reduced by hunting. In 1980 the Commonwealth Government passed the *Whale Protection Act* banning whaling in Australian waters. Populations are recovering following the ban on hunting, and

these mammals are also protected under the *Western Australian Wildlife Conservation Act*.

Birds

About 510 bird species are found in Western Australia including 380 breeding species and 130 non-breeding migratory or visiting species. Fourteen bird species are endemic to the State. These are Carnaby's and Baudin's Black-cockatoo, Western Long-billed Corella, Red-caped Parrot, Western Rosella, Noisy Scrub-bird, White-breasted Robin, Red-winged Fairy-wren, Black Grass-wren, Western Bristlebird, Dusky Flyeater, Western Thornbill, Western Spinebill and Red-eared Firetail.

Of these, the Grass-wren occurs only in the Kimberley, and the Dusky Flyeater in Kimberley, Pilbara and Gascoyne regions, while the remainder are restricted to the south-west of the State.

Status

Currently 32 bird species or subspecies are declared threatened under the Wildlife Conservation Act and a further seven species are declared in need of special protection. Of Western Australia's 14 endemic species, four — the Noisy Scrub-bird, Baudin's Black-cockatoo, Carnaby's Black-cockatoo and the Western Bristlebird — are gazetted as threatened or in need of special protection. Some of Western Australia's bird species, such as the Grey Falcon and Red Goshawk, may have always been rare while numbers of other birds, like the Noisy Scrub-bird and the Gouldian Finch, are known to have declined dramatically since European settlement.

A few species including the Magpie, Galah, Little Lorella, Silver Gull, Crested Pigeon, Welcome Swallow, Australian Shelduck, Maned Duck and Pink-eared Duck have expanded in range and/or numbers since European settlement. These species have been favoured by changes to food systems and habitats brought about by European settlement, for example widespread cultivation of cereal crops and large open-pit refuse disposal.

Many other species have declined in range or numbers over the last 150 years, with the major declines occurring in the last 50 years or so.

The Freckled Duck appears to be declining in numbers in the south-west. Waterfowl surveys over the past five years shown the number of Freckled Ducks counted declined from 151 birds in the 1986 survey to no birds counted in 1991. The actual number of Freckled Duck in the south-west may now be no more than 50 birds. The cause and significance of this decline are uncertain. In the past when the numbers of Freckled Duck declined the population was replenished by migration from other parts of its range.

Conservation

To conserve bird species in the wild requires protection of their habitat (particularly breeding habitat) and protection from exotic predators. CALM gives a high priority in the State's conservation

reserve system to the inclusion of prime bird habitat areas such as large wetlands. Major reserves important in this way include the Fitzgerald River National Park and the Prince Regent River Nature Reserve.

Australia is a signatory to the Ramsar Convention to protect waterfowl habitat. The convention encourages countries to establish reserves on wetlands and to work towards increasing waterfowl population. Nine areas in Western Australia have been listed under this convention as wetlands of international importance.

The listed areas are: the Ord River Floodplain, Lakes Argyle and Kununurra, Roebuck Bay, Eighty Mile Beach, Forrestdale and Thompsons Lakes, Peel Yalgorup System, Lake Toolibin, Vasse-Wonnerup System and the Lake Warden System.

Australia is also signatory to international agreements with Japan and China to protect migratory birds. These agreements provide for cooperation to protect birds which migrate between the respective countries, and recognise that conserving migratory species requires international action. The agreements promote such measures as controlling the taking of migratory birds, establishing sanctuaries to protect the birds and their habitats, undertaking joint research, and exchanging information and publications.

Illegal nest robbing for the avicultural trade is a major threat to Red-tailed and White-tailed Black Cockatoos in Western Australia's South-west as their nests are destroyed and birds removed. Illegal operators may take young birds from the wild and then claim they had been bred in captivity from adult birds held lawfully under licence. Recent advances in DNA technology allows captive breeding claims to be tested, which has led to detection and prosecution of illegal trappers.

Reptiles

Australia's reptile fauna includes more than 750 known species. Of these, 520 species occur in Western Australia. The sandy deserts of Western Australia have one of the richest reptile faunas in the world; the Great Victoria Desert and the Great Sandy Desert each has about 65 species of lizards.

Status

Few reptiles in Western Australia are declared rare or threatened, although the status of many is unclear because it is not known how many there are or where they live. Species currently listed as threatened are the Leathery Turtle, Western Swamp Tortoise, Yinnietharra Dragon, Lancelin Island Skink, Baudin Island Spiny-tailed Skink and the Rough-scaled Python.

Several other reptiles are listed as needing special protection because past hunting has depleted populations, they live only in a few places, or their numbers have been observed to decline.

They are the Saltwater and Australian Freshwater crocodiles, and Ramsay's, Carpet and Pilbara Olive pythons.

No species of reptile is known to have become extinct in Western Australia since European settlement. Several species have declined in range and abundance, largely as a result of clearing land for agriculture or urban development.

Conservation

One of the world's rarest reptiles, the Western Swamp Tortoise is known to live only in one nature reserve near Perth. Its conservation has been the subject of intensive research by CALM, the University of Western Australia and the Perth Zoo.

A captive breeding colony has been established and despite early difficulties, has successfully raised hatchlings since 1989. A recovery plan has been developed that will involve buying additional habitat, extending swamp life, controlling exotic predators, breeding in captivity and reintroducing hatchlings to the wild.

Four species of marine turtles have been recorded breeding in Western Australia — Green, Flatback, Hawksbill and Loggerhead. All four depend on access to undisturbed and unpolluted beaches to nest. In common with Leatherback and Olive Ridley turtles, they are migratory. World-wide turtle populations are under enormous human pressure. The Green, Loggerhead and Hawksbill turtles travel long distances from nesting to feeding grounds. CALM, in association with communities in the north-west, has been studying turtle migration and behaviour through a tagging program. Marine turtle conservation in Western Australia depends upon national and international support and cooperation.

Saltwater Crocodiles were hunted to near extinction in the Kimberley before hunting was prohibited in 1970. Since then crocodile numbers have slowly recovered. In 1988 commercial crocodile farming commenced in Western Australia and now three licensed farms are operating. The long term viability of wild crocodile populations is enhanced by these farms. A management program for both Saltwater and Freshwater crocodiles is currently being prepared.

Amphibia

Frogs are the only amphibians that occur in Australia. Two families of frogs are represented in Western Australia: the *Hylidae* (Tree Frogs - 25 species) and the *Leptodactylidae* (Ground Frogs - 53 species). Western Australia's frog fauna is comparatively rich, with its 78 species forming more than one third of Australia's known 182 species. Forty-one species are known only in this State, including 27 of the 29 species occurring in the south-west. Several genera found elsewhere in Australia are most diverse in Western Australia, for example *Geocrinia*, *Uperoleia*, *Heleioporus* and *Neobatrachus*, while the burrowing genera *Arenophryne* and *Myobatrachus* occur only in this State.

Status Two species, *Geocrinia vitellina* (Orange-bellied Frog) and *G. Alba* (White-bellied Frog), are gazetted as threatened fauna because of restricted distributions and vulnerability to habitat change. No species of frog is known to have become extinct in Western Australia since European settlement.

Conservation Although many species of frog can withstand changes in the uses of land, many others are vulnerable to disturbance. Few survive major land disturbances such as the salinity changes occurring in the wheatbelt. Several species may perish in the wake of agricultural clearing or urbanisation.

Species of the *Geocrinia rosea* complex, for example, are restricted to permanently damp sites in the lower south-west and have not survived the destruction of their habitat by agricultural clearing or trampling of stock. A recovery plan has been prepared for the two *Geocrinia* species listed as threatened fauna.

Terrestrial Invertebrates

Invertebrates (animals without backbones) play important roles in every ecosystem and represent about 98 percent of the Earth's animals. Nevertheless, because most invertebrates are very small and most people's experience of them is restricted to the small proportion of species that are nuisances or economic pests, the ecological importance of invertebrates is rarely appreciated.

The number of invertebrate species in Western Australia is not known but is doubtless several hundreds of thousands. The main types of invertebrates are insects, arachnids (spiders, scorpions, mites, ticks), myriapods (centipedes, millipedes) and annelids (earthworms, leeches). About 90 percent of invertebrates are insects. The forests of south-west Western Australia have been estimated to support some 15,000 to 20,000 species of insects.

Status Invertebrates are characteristically smaller and therefore more abundant than vertebrates. Only Jewel Beetles (Family: *Buprestidae*) and the primitive ant, *Nothomyrmecia macrops*, are protected.

In Western Australia the conservation status of most invertebrate species is unknown, as the majority are yet to be described by science. This lack of a taxonomic foundation has seriously hindered research on much of Western Australia's invertebrate fauna.

For a limited number of invertebrates, however, considerable taxonomic, biological and ecological information is available. These include species of economic importance such as agricultural and forest pests and macro-invertebrates of intrinsic interest to naturalists, for example dragonflies, lacewings, beetles, butterflies, cicadas, spiders and scorpions.

The impact of European settlement on some of Australia's vertebrate fauna has been devastating, and it is quite likely that the impact on some invertebrates has also been severe.

Conservation

Conserving such a large and diverse group of animals presents considerable logistical problems.

Despite their ecological significance, research and management committed to the conservation of invertebrates lag far behind that for vertebrate animals.

Concern with pest invertebrates has focussed on their control. Nevertheless, such research has contributed to the knowledge of invertebrate biology and population dynamics. In Western Australia, research is continuing into forest pests such as Jarrah Leafminer, Gum Leaf Skeletonizer, Autumn Gum Moth and Bullseye Borer.

The health of most ecosystems is dependent on the functions provided by invertebrates and micro-organisms. These animals are too small and poorly known to attempt to protect them at a species level. Emphasis will, therefore, need to be placed on conserving a range of habitats to conserve the invertebrate fauna associated with those habitats. CALM is aiming to conserve a range of habitats so the invertebrate fauna who live in them can survive.

Marine and Freshwater Fauna

The majority (around 1,040) of the 1,500 species of fish found in Western Australian waters are tropical. The remainder are either southern temperate (400 species) or freshwater (60 species).

Most marine organisms have the ability to disperse in currents, usually as eggs or larvae. Consequently marine ecosystems generally have a much higher degree of interconnection than terrestrial ecosystems.

Status

Western Australia's coastal waters fauna has been increasingly exploited since European settlement. Most species have been managed as commercial fisheries, with some species exploited at very high levels. In spite of this exploitation of the marine environment, unlike the terrestrial environment, no species are known to have become extinct.

Habitat degradation and destruction in coastal waters and estuaries, largely through pollution, is probably the greatest threat to the marine fauna. In the north-west the mollusc *Drupella* has extensively destroyed corals. This may be a natural event or the result of an unknown artificial disturbance. Although exotic species have been introduced unintentionally (in ships' ballast water), they have not had the same effects as have occurred in terrestrial ecosystems.

Conservation

It is taking longer to establish a system of marine conservation reserves representing all the major marine habitat types occurring in Western Australia and their faunas and floras than it has to set up an equivalent terrestrial system. Six marine conservation reserves have recently been established, the most significant being the Ningaloo and Marmion Marine Parks. Exploitation pressure in marine organisms has been controlled by limiting entry to commercial fisheries and introducing bag limits and closed seasons in recreational fisheries.

Two species of fish found only in the subterranean waters of North-West Cape, the Blind Gudgeon and the Blind Can-eel, are gazetted as threatened fauna because of their restricted distribution and vulnerability to changes in the aquifer that may follow increased use of groundwater. The degree of which the effects of waste disposal (particularly sewage) in coastal waters between Bunbury and the Perth metropolitan areas can be limited will influence future marine habitat and biota conservation in this region, which is experiencing the most rapid human population growth in Western Australia.

Legislation and Management

Western Australia's flora and fauna (excluding fish) are protected under the *Wildlife Conservation Act (1950-1987)* and the *Conservation and Land Management Act (1985)* while responsibility for national parks, nature reserves, marine conservation reserves and conservation parks, are vested in the National Parks and Nature Conservation Authority (NPNCA). All are administered by the Department of Conservation and Land Management. Fish species are protected and managed through the *Fisheries Act*, which is administered by the Department of Fisheries.

The protection of threatened flora and fauna and the conservation of natural resources requires the preparation of detailed management plans to study and safeguard the natural habitat. With the progressive implementation of these plans more of Western Australia's unique environment is being preserved for the benefit of all.

Environmental Protection

Contributed by the Department of Environmental Protection

Major achievements for 1994/95 Policy

After extensive public consultation on the environmental protection policy for wetlands of the South West agricultural region, the revised draft policy prepared for the EPA was presented to the Minister for the Environment.

- Environmental studies* Field work and data acquisition for the Southern Metropolitan Coastal Waters Study, the Perth Photochemical Smog Study and the Perth Haze Study were completed or nearing completion.
- The final reports for the first two studies were due for release in early 1995/96. The studies will enable development of management strategies for their respective issues.
- Environmental evaluation for the EPA* The task of providing technical advice to the EPA for its assessment of proposals is being reviewed and modified to take account of the separation of the department and the EPA. The separation requires a greater formalisation of the roles and reporting between the two organisations. An external review is leading to a quality assurance approach being implemented.
- Pollution management* A successful prosecution under S 118 of the Environmental Protection Act led to a company director being gaoled for polluting the environment; this was the first known such sentence in Australia.
- Waste management* On the waste management front, strong local markets were established for waste materials and recycled products through a "buy recycled" campaign, and strategic government purchasing.
- A draft State waste minimisation and recycling policy was prepared for government consideration and a Government recycled products purchasing policy was developed in conjunction with the State Supply Commission. Several local authorities established recycled preference purchasing policies.
- Interagency co-ordination* The department finalised two memoranda of understanding (MOU) with key government agencies to establish criteria defining proposals requiring referral to the EPA for environmental impact assessment and proposals which can have agreed standard environmental conditions attached to them as part of the approval process. This has streamlined the development approvals process by eliminating unnecessary environmental assessment. Five more MOUs were in an advanced stage of preparation.
- The department has continued to provide environmental education support and training to teachers throughout the year. It has formed a technical working group and developed curriculum material to support a pilot student air quality monitoring program, Airwatch, for implementation in 1995/96.
- Community awareness* Community awareness was reinforced through World Environment Day 1995 celebrations and through new publications such as codes of practice, environmental education brochures and guides to environmental impact assessment processes.
- Legislation* Amendments to improve the operation of the Environmental Protection Act were recommended to government.

A proposal to implement changes to the environmental impact assessment process arising from the review of the Environmental Protection Act was held over until 1995/96 pending the outcome of proposed amendment to the State's planning legislation.

Regional offices

A regional office was established at Kalgoorlie, extending the department's capability to provide a regionally responsive environmental protection service to the State.

Planned achievements for 1995/96

Policy

Environmental protection policies for groundwater protection in metropolitan Perth and wetlands in the South West will be finalised or significantly advanced.

We will establish a process to generate a State of Environment Report to provide guidance for policy development on environmental management to Government. This is a key project which will contribute towards the development of an "Environmental Vision" by the Environmental Protection Authority.

Environmental studies

Air quality management strategies will be developed to address the increasing incidence of photo chemical smog and brown haze in the metropolitan region, strategies for improved coastal waters management will be developed.

Environmental evaluation for the EPA

We will introduce environmental management to match life cycle phases of development projects. This includes strategic environmental assessment to match feasibility studies; rationalisation of evaluation and licensing processes; more efficient processes to manage changes to previously approved projects and plant expansions; more specific requirements for decommissioning and project closure.

A formulated quality assurance system will be introduced to improve the Environmental Impact Assessment process. This follows a quality assurance review of the EIA process during the past year.

Pollution management

"Best practice" pollution control licensing will be introduced to recognise industries which comply with environmental management standards and commit to programs of continuous environmental improvement.

A discussion paper outlining options for a systematic approach to contaminated sites across the State will be released for public comment. The paper and the discussion it generates will go towards drafting site contamination legislation to help the State deal with issues such as cleanup criteria and liability.

Waste management

A discussion paper will be released for public comment towards developing a more effective framework for waste management across the State, including a State waste management strategy and specific waste management legislation.

Interagency co-ordination

A service delivery agreement for the EPA will be developed as well as a protocol with the Ministry for Planning for implementing changes to planning and environmental legislation. The department is committed to community awareness and environmental education as an important way to achieve environmental protection in Western Australia. Work continued on the schools based program Airwatch and the development of community action plans.

The community support branch is currently investigating Community Action Plans (CAPs) as a way to enhance community participation in environmental protection within Western Australia. CAPs bring together different interest groups (industry, business, residents, environmental, local government and individuals) to develop a plan highlighting environmental priorities, specific targets and actions for improving the local environment. The community support branch will test the process of formulating and implementing a CAP in the latter half of 1995.

As an extension to the Perth Photochemical Smog and Haze studies detailed elsewhere, the community support branch is developing a schools based air quality monitoring program which will allow students to be exposed to the air quality issues in Western Australia. Airwatch will involve students learning sampling techniques, meteorology and examination of a variety of gases and exploring appropriate solutions.

Work has also continued on a review of the place of environmental education in the formal education system.

"Clean air, clean land, clean water...I Can Do That!" was the Australian theme for World Environment Day 1995 emphasising the role individual people have in environmental protection.

The department is aware of the importance of the Library and Information Centre as a pool of environmental information that is available to a wide range of users. To ensure that the centre's collection is as current as possible the budget for the library was increased in 1994/95.

References

ABS References

Australia's Environment Issues and Facts (4140.0).

Other References.

State of the Environment Report. Joint production by the Environmental Protection Authority, the Department of Conservation and Land Management and the Department of Land Administration, December 1992

GOVERNMENT

Chapter 3

GOVERNMENT

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Chapter 3

GOVERNMENT

Western Australia is one of the six federated sovereign States which, together with the Northern Territory and the Australian Capital Territory, constitute the Commonwealth of Australia. Thus, in addition to having its own Parliament and executive government, it is represented in the Federal legislature. As well as government at the Federal and State levels, there is a third system, that of Local Government, which functions through City Councils, Town Councils and Shire Councils. This chapter will focus on State and Local Government. For an outline of Western Australia's Constitutional development, refer to Chapter 4 of the 1993 Western Australia Year Book.

The Governor of Western Australia

The Governor of Western Australia is the personal representative of the Sovereign in the State and exercises the powers of the Crown in State matters. The present Governor of Western Australia, Major General Philip Michael Jeffery was appointed on 1 November 1993. He is the titular head of the Government and performs the official and ceremonial functions pertaining to the Crown.

In the event of the Governor's absence from Western Australia, the Lieutenant-Governor of the State is appointed Administrator. If there is no Lieutenant-Governor, it is customary for the Chief Justice of Western Australia to be appointed Administrator. During the absence from Australia of the Governor-General, it is usual for the senior among the State Governors to be appointed Administrator.

The State Parliament

The Crown, represented by the Governor, and the Parliament, comprising a Legislative Council and a Legislative Assembly, constitute the legislature of Western Australia.

Executive government is based, as in the case of the Commonwealth, on the system which evolved in Great Britain in the eighteenth century and which is generally known as the 'cabinet' system. The cabinet consists of Ministers of the Crown chosen for the Ministry from members of Parliament belonging to the political party, or coalition of parties, which is in the majority in the Legislative Assembly. The Constitution requires that at least one of the Ministers be selected from members of the Legislative Council. In Western Australia, as in the other Australian States, the office of principal Minister is designated 'Premier'.

TABLE 3.1 - MINISTRIES FROM 1890

Name of Premier	Political party	Date of assumption			Duration		
		Year	Day	Month	Years	Months	Days
Forrest	(a)	1890	29	December	10	1	17
Throssell	(a)	1901	15	February	—	3	12
Leake	(a)	1901	27	May	—	5	25
Morgans	(a)	1901	21	November	—	1	2
Leake	(a)	1901	23	December	—	6	8
James	(a)	1902	1	July	2	1	9
Daglish	Labor	1904	10	August	1	—	15
Rason	Liberal	1905	25	August	—	8	12
Moore	Liberal	1906	7	May	4	4	9
Wilson	Liberal	1910	16	September	1	—	21
Scaddan	Labor	1911	7	October	4	9	20
Wilson	Liberal	1916	27	July	—	11	1
Lefroy	Liberal	1917	28	June	1	9	20
Colebatch	Liberal	1919	17	April	—	1	—
Mitchell	National and C.P. coalition	1919	17	May	4	10	30
Collier	Labor	1924	16	April	6	—	8
Mitchell	National and C.P. coalition	1930	24	April	3	—	—
Collier	Labor	1933	24	April	3	3	27
Wilcock	Labor	1936	20	August	8	11	11
Wise	Labor	1945	31	July	1	8	1
McLarty	L.C.L. and C.P. coalition	1947	1	April	5	10	22
Hawke	Labor	1953	23	February	6	1	10
Brand	L.C.L. and C.P. coalition	1959	2	April	11	11	1
Tonkin	Labor	1971	3	March	3	1	5
Court, Sir C.	Liberal and C.P. coalition	1974	8	April	7	9	17
O'Connor	Liberal and C.P. coalition	1982	25	January	1	1	—
Burke	Labor	1983	25	February	5	—	—
Dowding	Labor	1988	25	February	1	11	12
Lawrence	Labor	1990	12	February	3	—	4
Court, R.	Liberal and C.P. coalition	1993	16	February	Still in office		

C.P. = Country Party (b); L.C.L. = Liberal and Country League (c); Labor = Australian Labor Party; Liberal = Liberal Party

(a) No specific party designation. (b) The National Country Party of Aust (WA) Inc changed its name to National Party of Australia (WA) Inc. on 2 October 1984. (c) The name of the Party was changed to The Liberal Party of Australia (Western Australian Division) Inc. on 15 July 1968.

Since 1890, when responsible government was granted to Western Australia, there have been thirty separate Ministries. No organised political party existed in the Colony until the formation of a Labor party in the 1890s. A Labor Ministry assumed office in 1904.

The *Constitution Act 1889* provided for a Ministry of five members. This number was increased by subsequent amendments to the Act to 17.

The right to vote at parliamentary elections was extended to women by the *Constitution Acts Amendment Act 1899* and membership of either House was provided for by the *Parliament (Qualification of Women) Act 1920*.

The first woman member of any Australian Parliament was Mrs Edith Dircksey Cowan, OBE, who was elected to the Legislative Assembly in March 1921 as member for West Perth. Mrs A.F.G. (later Dame Florence) Cardell-Oliver, MLA for Subiaco became the first woman Cabinet Minister in Australia when she joined the McLarty Ministry in 1947.

Under the provisions of the *Acts Amendment (Electoral Reform) Act 1987*, which came into operation on 30 October 1987, three Electoral Distribution Commissioners were appointed to divide the State into 57 electoral districts — 34 comprising the Metropolitan Area (as described in the *Metropolitan Region Town Planning Scheme Act 1959*, as at 1 January 1987) and 23 the remainder of the State. These districts return one member each to the Legislative Assembly.

The State is also divided into six regions — three Metropolitan regions consisting of the Metropolitan electoral districts, a South-West region, an Agricultural region and a Mining and Pastoral region consisting of the electoral districts comprising the remainder of the State. The North Metropolitan Region and the South-West Region each return seven members to the Legislative Council, and the other electoral regions return five Council members.

The division process, was completed on 29 April 1988, when the final division was gazetted. This division applied to the election held in February 1989 and will apply to subsequent general elections for the Legislative Assembly.

A further provision of the Act which extends the terms of members of both Houses of Parliament to four years, commenced from the thirty-third Parliament.

Elections

The State Parliament At the Western Australian election for the Legislative Council and the Legislative Assembly held on 6 February 1993, a Liberal/Country Party Coalition, led by Richard Court MLA, was elected to office with a majority in the Legislative Assembly.

Legislation During 1994 During the second session of the thirty-fourth Parliament, which lasted from 5 May 1993 to 20 December 1994, the Western Australian legislature enacted eighty-five Public Statutes.

State Government administration

The Public Service of Western Australia operates under the provisions of the *Public Service Act 1978* and consists of a number of Departments established in accordance with the Act. The establishment, abolition or alteration of Departments is subject to the approval of the Governor. Other parts of the State Public Service, normally referred to as Statutory Authorities or Instrumentalities, function under separate Acts, although they largely follow the conditions prescribed in the Public Service Act.

The Judicature

The two major factors in the development of the Australian legal system have been its British origin and the Commonwealth Constitution of 1900. This Statute, an Act of the Imperial Parliament in London, limited the legislative power of State Parliaments in some respects and created a federal legislature.

TABLE 3.2 - THE HONOURABLE MEMBERS
OF THE LEGISLATIVE COUNCIL
APRIL 1995 (a)

<i>Name</i>	<i>Political party</i>	<i>Electoral region</i>
S.G.E. Cash	Liberal	North Metropolitan
K.M. Chance	Labor	Agricultural
E.J. Charlton	National	Agricultural
J.A. Cowdell	Labor	South West
M.J. Criddle	National	Agricultural
C.M. Davenport	Labor	South Metropolitan
R.E. Davies	Independent	North Metropolitan
B.K. Donaldson	Liberal	Agricultural
G.J. Edwards	Labor	North Metropolitan
G.M. Evans	Liberal	North Metropolitan
V. E. Ferguson	Labor	East Metropolitan
P.G. Foss	Liberal	East Metropolitan
N.D. Griffiths	Labor	East Metropolitan
C.E. Griffiths	Liberal	South Metropolitan
S.J. Halden	Labor	South Metropolitan
T.R. Helm	Labor	Mining & Pastoral
B.J. House	Liberal	South West
P.R. Lightfoot	Liberal	North Metropolitan
P.H. Lockyer	Liberal	Mining & Pastoral
I.D. MacLean	Liberal	North Metropolitan
A.J.G. MacTiernan	Labor	East Metropolitan
M.S. Montgomery	National	South West
N.F. Moore	Liberal	Mining & Pastoral
M.W. Nevill	Labor	Mining & Pastoral
M.D. Nixon	Liberal	Agricultural
M.G. Patterson	Liberal	South West
S.M. Piantadosi	Labor	North Metropolitan
B.M. Scott	Liberal	South Metropolitan
J.A. Scott	Green	South Metropolitan
T.G. Stephens	Labor	Mining & Pastoral
W.N. Stretch	Liberal	South-West
R.J. Thomas	Labor	South-West
D.G. Tomlinson	Liberal	East Metropolitan
D.W. Wenn	Labor	South West

SUMMARY

The Liberal Party of Australia (Western Australian Division)	
Incorporated (Liberal)	15
Australian Labor Party (Labor)	14
National Party of Australia (National)	3
Independent	1
Green	1

(a) Current terms commenced on 22 May 1993 and expire on 21 May 1997.
Source: Legislative Council, Parliament of Western Australia.

Since 1942, however, the Imperial Parliament can legislate for Australia only at Australia's request.

The sources of Australian law of today are, therefore, found in Commonwealth and State legislation, in some Imperial legislation, and in the common law. Independence of the judiciary is an essential part of the Australian legal system.

TABLE 3.3 - MEMBERS OF THE LEGISLATIVE ASSEMBLY
JUNE 1995

<i>Name</i>	<i>Political party</i>	<i>Electoral district</i>
R. A. Ainsworth	National	Roe
Hon. C. J. Barnett	Liberal	Cottesloe
Hon. M. Barnett	Labor	Rockingham
B. R. Blaikie	Liberal	Vasse
R. C. Bloffwitch	Liberal	Geraldton
M. F. Board	Liberal	Jandakot
J. L. Bradshaw	Liberal	Wellington
Hon. E. F. Bridge	Labor	Kimberley
C. M. Brown	Labor	Morley
N. M. Catania	Labor	Balcatta
J. G. Clarko	Liberal	Marmion
Dr E. Constable	Independent Liberal	Floreat
Hon. R. F. Court	Liberal	Nedlands
H. J. Cowan	National	Merredin
E. J. Cunningham	Labor	Marangaroo
J. H. D. Day	Liberal	Darling Range
Hon. C. L. Edwardes	Liberal	Kingsley
Dr J. M. Edwards	Labor	Maylands
Dr G. I. Gallop	Labor	Victoria Park
L. Graham	Labor	Pilbara
Hon. J. F. Grill	Labor	Eyre
Hon. K. Hallahan	Labor	Armadale
Dr K. D. Hames	Liberal	Dianella
Hon. Y. D. Henderson	Labor	Thornlie
Hon. M. G. House	National	Stirling
R. F. Johnson	Liberal	Whitford
Hon. G. D. Kierath	Liberal	Riverton
J. C. Kobelke	Labor	Nollamara
K. J. Leahy	Labor	Northern Rivers
Hon. K. R. Lewis	Liberal	Applecross
Hon. J. A. McGinty	Labor	Fremantle
W. J. McNee	Liberal	Moore
N. R. Marlborough	Labor	Peel
A. D. Marshall	Liberal	Murray
Hon. K. J. Minson	Liberal	Greenough
Hon. R. K. Nicholls	Liberal	Mandurah
Hon. P. D. Omodei	Liberal	Warren
R. K. Parker	Liberal	Helena
I. F. Osborne	Liberal	Bunbury
Hon. P. G. Pandal	Independent Liberal	South Perth
K. A. R. Prince	Liberal	Albany
F. Riebeling	Labor	Ashburton
E. S. Ripper	Labor	Belmont
M. H. Roberts	Labor	Glendalough
D. J. Shave	Liberal	Melville
Hon. D. L. Smith	Labor	Mitchell
W. Smith	Liberal	Wanneroo
G. J. Strickland	Liberal	Scarborough
Hon. I. F. Taylor	Labor	Kalgoorlie
W. I. Thomas	Labor	Cockburn
M. W. Trenorden	National	Avon
F. C. Tubby	Liberal	Roleystone
Dr H. Turnbull	National	Collie
J. Van De Klashorst	Liberal	Swan Hills
D. M. Warnock	Labor	Perth
Dr J. Watson	Labor	Kenwick
Hon. R. L. Wiese	National	Wagin

SUMMARY

The Liberal Party of Australia (Western Australian Division)	
Incorporated (Liberal)	26
Australian Labor Party (Labor)	23
National Party of Australia (National)	6
Independent Liberal	2

TABLE 3.4 – WESTERN AUSTRALIAN STATE MINISTRY, FEBRUARY 1995

<i>Minister</i>	<i>Title of office</i>
Hon. R.F. Court, MLA, B Comm.	Premier; Treasurer; Federal Affairs; Tourism; Public Sector Management
Hon. H. J. Cowan, MLA.	Deputy Premier; Commerce and Trade; Regional Development; Small Business; Leader of the National Party
Hon. C.J. Barnett, MLA, MEc.	Resources Development; Energy; Leader of the House in the Legislative Assembly
Hon. M.G. House, MLA, JP.	Primary Industry; Fisheries
Hon. S.G.E. Cash, MLC, JP.	Mines; Lands; Assisting in Public Sector Management; Leader of Government in the Legislative Council
Hon. E.J. Charlton, MLC.	Transport;
Hon. N.F. Moore, MLC., BA., Dip Ed.	Education; Employment and Training; Parliamentary and Electoral Affairs; Sport and Recreation
Hon. C.L. Edwardes, MLA, B Juris, LLB., BA.	Attorney-General; Women's Interests; Justice
Hon. G.M. Evans, MLC., MBE., FCA.	Finance; Racing and Gaming; Assisting the Treasurer
Hon. A.K.R. Prince, MLA., LLB.	Aboriginal Affairs; Housing
Hon. P.D. Omodei, MLA.	Local Government; Multicultural and Ethnic Affairs
Hon. P.G. Foss, MLC.	Environment; the Arts; Fair Trading; Water Resources
Hon. K.J. Minson, MLA., BDSc.	Works; Services; Disability Services; Assisting the Minister for Justice
Hon. R.K. Nicholls, MLA.	Community Development; the Family; Seniors
Hon. G.D. Kierath, MLA.	Labour Relations; Health
Hon. R.L. Wiese, MLA.	Police; Emergency Services
Hon. K.R. Lewis, MLA.	Planning; Heritage
Mr J.L. Bradshaw, MLA., MPS., JP.	Parliamentary Secretary of Cabinet;
Mr F. C. Tubby, MLA., B.Ed., MACE., JP.	Parliamentary Secretary of State assisting in Education; Employment and Training; Sport and Recreation; Assisting the Minister for Commerce and Trade;
Mr J. G. Clarko, MLA., A.E., BA., Dip Ed., MACE., JP.	Speaker;
Mr W.J. McNee, MLA.	Parliamentary Secretary to the Minister for Water Resources; Local Government
Mr G. J. Strickland, MLA., B App Sc., Dip Ed.	Chairman of Committees;
Mr R. C. Bloffwitch, MLA.	Government Whip.

Source: Ministry of the Premier and Cabinet

**TABLE 3.5 - WESTERN AUSTRALIAN SHADOW MINISTRY,
JANUARY 1995**

<i>Minister</i>	<i>Title of Office</i>
Hon. J.A. McGinty, MLA.	State Labor Leader; Treasurer; Attorney General; Arts; South-West; Parliamentary and Electoral Reform
Dr G.I. Gallop, MLA.	Deputy Leader; Health; Accountability; Federal Affairs; Community Infrastructure
Hon. S.J. Halden, MLC.	Leader of the Opposition in the Legislative Council; Education; Employment and Training; Youth
Hon. M.W. Nevill, MLC.	Deputy Leader of the Opposition in the Legislative Council; Mines; Finance; Goldfields
Hon. E.F. Bridge, MLA.	Aboriginal Affairs; North-West
C.M. Brown, MLA.	Community Development; Justice; Corrective Services
N.M. Catania, MLA.	Police; Emergency Services; Small Business
Hon. K.M. Chance, MLC.	Primary Industry; Mid West; Wheatbelt; Assisting Health
Dr J.M. Edwards, MLA.	Environment
Hon. J.F. Grill, MLA.	Resources Development
Hon. K. Hallahan, MLA.	Transport; Tourism
Hon. Y.D. Henderson, MLA.	Public Sector Management; Consumer Affairs; Heritage
J.C. Kobelke, MLA.	Planning; Lands; Family; Freedom of Information Spokesman
Hon. A.J.G. MacTiernan, MLC.	Productivity and Labour Relations; Legislative Council Spokesperson on Housing Construction
N.R. Marlborough, MLA.	Local Government; Works; Services
F. Riebeling, MLA.	Housing
E.S. Ripper, MLA.	Leader of the House; Resources Development
M.H. Roberts, MLA.	Multicultural and Ethnic Affairs; Water Resources; Seniors
Hon. I.F. Taylor, MLA.	Racing and Gaming; Sport and Recreation
W.I. Thomas, MLA.	Energy; Science and Technology; Commerce and Trade
Dr J. Watson, MLA.	Women's Interests; Disability Services; Children's Policy
Hon. T. G. Stephens, MLC.	Parliamentary Secretary to State Parliamentary Labor Party

Source: Parliamentary Library, Parliament of Western Australia.

State Representation Western Australia has been represented in the United Kingdom by an Agent General since 1892. An Office is maintained at Western Australia House, 115 Strand, London, WC 2ROAJ.

The Agent General's Office acts as agent for the State Treasury and as a receiving agency for The Bank of Western Australia (BankWest). Western Australia's European Public Relations Office and its tourist officer for the United Kingdom and Europe also operate from Western Australia House.

The functions of the Office include the representation of all Government Departments which have business in Britain and Europe, the purchase of government stores and equipment, an information resource for migrants, the encouragement of overseas private investment in Western Australia, and the provision of various types of assistance to visitors from Western Australia.

The Agent General for Western Australia, is the personal representative in Britain of the State Premier. The State is also represented in Japan, an Office being maintained by the Western Australian Government at Sankaido Building, 9-13 Akasaka, 1-Chome, Minato-Ku, Tokyo 107.

Travel centre managers of the Western Australian Tourism Commission also provide liaison on behalf of Government Departments which have business in other States and Territories of Australia as well as overseas.

**The Local
Government System**

The function of local government in Western Australia is performed by a number of Councils (or, in special circumstances, by Commissioners appointed by the Governor) exercising powers conferred by the Parliament of the State. Each of the Councils consists of members elected by local community and is responsible for the provision of many of the services necessary for the organisation and welfare of the community which it represents.

*Local Government
Districts*

On presentation of a petition signed by a prescribed minimum number of electors, the Governor may, by Order, constitute any part of the State as a Town; constitute as a new Shire any part of an existing Shire; divide a Shire into two or more Shires; sever a portion of a district and annex the portion to an adjoining district, or constitute the portion as a new Town or Shire; divide a district into wards; or abolish a district and dissolve the local governing authority. In some cases the electors of a district have the right to demand that a poll be held on the question of boundary changes.

On the petition of the local authority concerned, the Governor may, by Order, declare to be a City any district which satisfies certain specified requirements. These requirements are that during the three years immediately preceding the declaration, it shall have maintained a population of not less than 30,000 persons if

situated in the metropolitan area as declared for the purposes of the Act, or not less than 20,000 persons if situated outside that area; and have maintained a gross revenue of \$200,000 for each of the three years.

In addition, the district must be clearly distinguishable as a centre of population having a distinct civic centre with adequate halls and cultural facilities, and must have sufficient residential, commercial, and industrial centres to justify its declaration as a separate city. There are now 19 cities, 10 towns and 109 shires in Western Australia.

The *Local Government Act 1960* establishes a Local Government Boundaries Commission of three members. The Minister may refer to the Commission any question concerning the constitution or alteration of the constitution of local government districts. Every case where authorities are unable to agree on a matter of amalgamation or severance of territory must be referred to the Commission.

The boundaries of local government districts are delineated on the maps of the State in the Appendix.

Constitution and Electoral Provisions

The provisions of the Local Government Act relating to the composition of a Council require that the minimum number of members be five with no limit set for the maximum number.

Provision is made for local government elections to be held on the first Saturday in May of each year but in specified circumstances the Governor may, by proclamation, appoint a Saturday in May, later than the first Saturday, to be the election date. Voting is not compulsory. Membership of a Council is elective in all cases, the qualified electors being adult Australian citizens, resident in the district and enrolled for the Legislative Assembly, or who own or occupy rateable land in the district.

The preferential system of voting is used and representation is generally on the basis of wards into which the district may be divided. Each elector is entitled to one vote. Subject to disqualification on certain specified grounds, all electors, other than corporation nominees, are eligible for election to the Council of the district whether as Mayor, President or Councillor.

The term of office of Mayor or President is three years if elected by the electors of the district, or one year if elected by the Council. Councillors are elected for a term of three years, as near as practicable to one-third of their number retiring each year. On the expiration of their term of office, all members, including the Mayor and the President, are eligible for re-election if not subject to any of the disqualifications contained in the Act.

Functions of Local Authorities

The functions and powers of local authorities are extremely diverse in character. They are prescribed in detail in the Local

Government Act. Some of the more important of them are those relating to hospitals and nursing services, kindergartens, hostels for school children, community centres, dental clinics, infant and maternal health centres, day nurseries, control of dogs, jetties, swimming pools, sanitation and disposal of refuse, fire prevention, eradication of noxious weeds and vermin, aerodromes, abattoirs, quarries, pounds and cemeteries. Under the provisions of the Health Act local authorities are responsible for certain aspects of health administration.

Financial Provisions

Local government authorities have four major sources of finance. They are moneys received from rates, loans, government grants and personal income tax entitlements. Financial powers of local authorities, although derived mainly from the Local Government Act, are also provided by other Statutes, including the Health Act, the Fire Brigades Act, the Cemeteries Act, and the Library Board of Western Australia Act.

Rates

The general rate for a local government district in any year is determined by dividing the sum required to make up the difference between anticipated expenditure and estimated revenue from sources other than rates for that year by the total value of rateable property in the district.

A Council may impose a rate which would yield less than the amount required to balance its budget, subject to approval by the Minister. In assessing the value of rateable property, every local authority must adopt valuations made by the Valuer-General under the provisions of the *Valuation of Land Act 1978*. The *Land Valuation Tribunals Act 1978* provides for the constitution of Land Valuation Tribunals, to which appeals may be made on matters concerning valuations of property.

Valuations may be on the basis of either 'unimproved value' or 'gross rental value'. The unimproved value generally represents the price which the rated land might be expected to realise if sold on the open market and, as the term implies, excludes any improvements. The gross rental value is an estimate of the gross rental value of the property including improvements.

Generally, City Councils and Town Councils are required to assess the general rate on the basis of gross rental value, and Shire Councils on unimproved value. Councils may charge a penalty on unpaid rates or offer a discount for early payment. The prescribed maximum percentage for penalty or discount is currently 10 per cent.

Loans

Local authorities are authorised to raise loans for works and undertakings and for the liquidation of existing loan debts. A Council may, with the written consent of the Minister, obtain advances from a bank for a budget deficiency, for the installation of sewerage connections and septic tanks, and for other work approved by the Governor.

Certain of the works and undertakings for which loan moneys may be used, are specified in the Local Government Act. They include the construction of streets, roads and bridges, sewers, drains and water works; the erection or purchase of electric lighting plant, gas works and stone quarries; the provision of hostels for school children, libraries and other recreational facilities; the construction of civic and other buildings; and the purchase of land, materials and equipment. Where a particular work or undertaking is not specified in the Act, the Governor may approve of it as a project for which money may be borrowed.

Government Grants

Government grants constitute an important source of revenue for local government authorities. These are mainly specific purpose payments for road works.

Personal Income Tax Entitlements

The *Local Government (Personal Income Tax Sharing) Act 1976* requires each State to allocate not less than 30 per cent of the funds among local government authorities on a population basis, but account may also be taken of the area of the authority, population density or any other matter agreed upon between the Commonwealth and the State. The remaining funds are to be allocated having regard to the special needs and disabilities of local authorities.

General

The financial transactions of local government authorities are subject to annual audit, either by an auditor (or auditors) appointed by the Council or by the Auditor-General or persons appointed by them. To qualify for the office of auditor, a person must be a member of a specified institute or society of accountants and be registered as an auditor under the Companies Act. Appointment is for a term not exceeding three years, at the end of which time the holder of the office is eligible for reappointment. The financial year for all Councils ends on 30 June.

Statistical Divisions

The local government districts are used as the basis of presentation of data derived not only from the population census but also from many of the regular statistical collections. Information presented in this way is valuable when considering activities in particular local government areas but is often more detailed than is required for a broader geographical assessment. For this reason, the local government districts are combined into statistical divisions which provide significant areas for the publication of statistics in a convenient summary form.

POPULATION

Chapter 4

POPULATION

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Chapter 4

POPULATION

Population

Summary

The population of Western Australia has many diverse ethnic, racial and religious characteristics. Data in Table 4.1 indicate:

- Western Australia contains about one-tenth of the Australian population; and
- the sex ratio in Western Australia has been declining since 1971.

**TABLE 4.1 – RESIDENT POPULATION:
WESTERN AUSTRALIA AND AUSTRALIA**
References: Catalogue Nos. 3101.0, 3201.0, 3203.5

Year ended 30 June	Western Australia	Australia	Proportion of Australia	Western Australia	
				Sex ratio(a)	Annual growth rate
	persons	persons	per cent	persons	per cent
1971 (b)	1,053,834	13,067,265	8.06	104.83	(b)
1976	1,178,342	14,033,083	8.40	103.73	2.26
1981	1,300,056	14,923,260	8.71	102.25	1.99
1986	1,459,019	16,018,350	9.11	101.83	2.33
1991	1,636,067	17,284,036	9.47	101.20	1.43
1992 r	1,657,350	17,489,072	9.48	101.09	1.30
1993 r	1,676,341	17,656,427	9.49	101.02	1.15
1994 p	1,701,064	17,838,401	9.54	100.97	1.47
1995 p	1,731,723	18,053,989	9.59	100.90	1.80

(a) Number of males per 100 females. (b) Resident Population not calculated prior to 1971.

Characteristics of the Population

Table 4.2 indicates that:

- males outnumber females by 7,751;
- for males the 20-24 year age group contains the largest proportion of the male population;
- for females the 30-34 year age group contains the largest proportion of the female population; and
- females outnumber males from about the age of 65 years onwards.

**TABLE 4.2 - RESIDENT POPULATION
IN SELECTED AGE GROUPS
AT 30 JUNE 1995 -Preliminary**
Reference: Catalogue No. 3101.0

Age group (years)	Number in each age group			Per cent		
	Males	Females	Persons	Males	Females	Persons
0 - 4	64,138	60,881	125,019	7.4	7.1	7.2
5 - 9	67,464	63,550	131,014	7.8	7.4	7.6
10 - 14	67,414	63,373	130,787	7.8	7.4	7.6
15 - 19	65,048	61,725	126,773	7.5	7.2	7.3
20 - 24	70,779	68,146	138,925	8.1	7.9	8.0
25 - 29	67,134	65,487	132,621	7.7	7.6	7.7
30 - 34	70,181	70,370	140,551	8.1	8.2	8.1
35 - 39	70,228	70,031	140,259	8.1	8.1	8.1
40 - 44	67,061	66,735	133,796	7.7	7.7	7.7
45 - 49	63,508	59,620	123,128	7.3	6.9	7.1
50 - 54	47,613	44,109	91,722	5.5	5.1	5.3
55 - 59	38,252	36,601	74,853	4.4	4.2	4.3
60 - 64	31,653	31,077	62,730	3.6	3.6	3.6
65 - 69	28,976	29,843	58,819	3.3	3.5	3.4
70 - 74	22,523	25,874	48,397	2.6	3.0	2.8
75 - 79	13,790	18,837	32,627	1.6	2.2	1.9
80 - 84	8,760	14,378	23,138	1.0	1.7	1.3
85 and over	5,215	11,349	16,564	0.6	1.3	1.0
Total	869,737	861,986	1,731,723	100.0	100.0	100.0

Religion and Birthplace Results from the 1991 Census reveal:

- Anglicans and Catholics represented 52.1 per cent (or 827,400 persons) of the Western Australian population;
- non-Christian religions represented 33,500 persons, only 2.1 per cent of all people in Western Australia;
- 86.0 per cent (or 1,364,500 persons) were born in English-speaking countries - primarily Australia and United Kingdom; and
- of the 191,800 persons born in non-English speaking countries, 14.1 per cent were born in Italy; 8.4 per cent were born in Malaysia; and 6.1 per cent were born in the Netherlands.

TABLE 4.3 - RELIGION OF THE POPULATION, CENSUS COUNTS
(^{'000 persons})

Religion	30 June 1981		30 June 1986		6 August 1991	
	^{'000}	%	^{'000}	%	^{'000}	%
Christian—						
Anglican	375.8	29.5	371.3	26.4	418.8	26.4
Baptist	15.9	1.2	16.9	1.2	25.9	1.6
Catholic	316.3	24.8	347.7	24.7	408.6	25.7
Churches of Christ	14.2	1.1	14.4	1.0	13.3	0.8
Methodist	51.2	4.0	(a)	—	(a)	—
Presbyterian	32.0	2.5	31.6	2.2	48.3	3.0
Uniting	(a)	—	82.9	5.9	93.2	5.9
Other	131.6	10.3	113.3	8.0	98.8	6.2
Total Christian	937.1	73.6	978.0	69.5	1106.9	69.7
Other—						
Non-Christian	11.6	0.9	23.0	1.6	33.5	2.1
Inadequately described	8.0	0.6	6.0	0.4	6.1	0.4
No religion	172.1	13.5	235.3	16.7	270.9	17.1
Not stated	144.8	11.3	164.3	11.7	169.7	10.7
Total Other	336.5	26.3	428.6	30.4	480.2	30.3
Total	1,273.6	100.0	1,406.9	100.0	1,586.8	100.0

(a) The Uniting Church in Australia — which was formed in June 1977 by the union of all the Methodist Churches and most of the Congregational and Presbyterian Churches — replaced the Methodist Church as a major category in the 1986 Census.

TABLE 4.4 - BIRTHPLACE OF THE POPULATION (a)
CENSUS COUNTS
(^{'000 persons})

Birthplace	30 June 1981	30 June 1986	6 August 1991
Main English-speaking countries—			
Australia	911.0	997.8	1,097.5
Ireland	6.5	6.8	9.5
New Zealand	18.5	25.2	35.4
South Africa	4.2	6.3	9.4
United Kingdom	179.7	187.2	206.9
United States of America	4.1	5.1	5.8
Total	1,124.0	1,228.4	1,364.5
Other Countries—			
Germany	8.1	9.5	10.2
Greece	4.3	4.0	3.5
India	10.1	10.6	11.6
Italy	29.2	27.8	27.0
Malaysia	5.4	8.7	16.1
Netherlands	11.3	11.6	11.7
Poland	5.0	6.5	7.2
Vietnam	2.8	5.9	8.2
Yugoslavia	11.0	11.2	12.6
Other	48.2	60.1	83.7
Total	135.4	155.9	191.8
Total (a)	1,273.6	1,406.9	1,586.8

(a) Includes those born at sea and not stated.

Aboriginal and Torres Strait Islander people

The 1991 Census of Population and Housing counted 41,779 Aboriginal and Torres Strait Islander people in Western Australia compared with 37,789 in 1986. The 1991 figure represented 2.6 per cent of all persons counted in the State. Table 4.5 shows the age distribution of Aboriginal and Torres Strait Islander people at 30 June 1981, 1986 and 6 August 1991.

At 6 August 1991:

- 61.4 per cent of Aboriginal and Torres Strait Islander people were less than 25 years of age and 3.0 per cent were 65 years of age or older;
- equivalent figures for the total State population were 39.4 per cent and 9.8 per cent respectively; and
- there were relatively fewer Aboriginal and Torres Strait Islander people in each age group above 20-24 years than for the total State population.

TABLE 4.5 - ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE: AGE DISTRIBUTION, CENSUS COUNTS (persons)

<i>Age last birthday (years)</i>	<i>30 June 1981</i>	<i>30 June 1986</i>	<i>6 August 1991</i>
0 - 4	4,108	5,349	6,488
5 - 9	4,580	4,702	5,573
10 - 14	4,616	4,866	4,934
15 - 19	3,827	4,712	4,383
20 - 24	3,089	4,098	4,280
25 - 29	2,367	3,182	3,698
30 - 34	1,772	2,472	3,042
35 - 39	1,421	1,933	2,389
40 - 44	1,259	1,499	1,822
45 - 49	1,099	1,193	1,277
50 - 54	910	1,025	1,064
55 - 59	575	800	836
60 - 64	590	615	721
65 - 69	478	523	474
70 and over	666	818	799
Total	31,357	37,787	41,780

Population in Statistical Local Areas

In Table 4.6 resident population in Statistical Local Areas is ranked by growth between 30 June 1993 and 30 June 1994. The names and designations are as they existed at 30 June 1994. The Cities of Fremantle, Perth and Stirling are comprised of a number of Statistical Local Areas. Statistical Local Areas are marked (C) for City, (T) for Town or (S) for Shire.

TABLE 4.6 — RESIDENT POPULATION (E.R.P.)
30 JUNE 1993 AND 30 JUNE 1994
STATISTICAL LOCAL AREAS RANKED BY GROWTH
Reference : Catalogue No. 3203.5

Statistical Local Area	1993	1994	Population change	Per cent change
PERTH STATISTICAL DIVISION				
Perth (C) - Inner	613	689	76	12.40
Rockingham (C)	51,388	53,767	2,379	4.63
Swan (S)	61,697	64,277	2,580	4.18
Serpentine-Jarrahdale (S)	8,833	9,188	355	4.02
Fremantle (C) - Inner	1,125	1,170	45	4.00
Wanneroo (C)	190,793	197,040	6,247	3.27
Cockburn (C)	53,706	55,219	1,513	2.82
Mundaring (S)	31,417	32,032	615	1.96
Kwinana (T)	18,983	19,311	328	1.73
South Perth (C)	34,888	35,394	506	1.45
Stirling (C) - South-Eastern	20,373	20,654	281	1.38
Canning (C)	69,674	70,602	928	1.33
Belmont (C)	26,723	27,030	307	1.15
Perth (C) - North	20,087	20,311	224	1.12
Claremont (T)	9,248	9,321	73	0.79
Fremantle (C) - Remainder	22,702	22,859	157	0.69
Perth (C) - South	25,191	25,353	162	0.64
Armadale (C)	50,802	51,126	324	0.64
Perth (C) - Outer	11,663	11,737	74	0.63
Bassendean (T)	13,824	13,904	80	0.58
Stirling (C) - West	54,724	55,034	310	0.57
Peppermint Grove (S)	1,538	1,546	8	0.52
Mosman Park (T)	7,691	7,721	30	0.39
Melville (C)	92,015	92,244	229	0.25
Gosnells (C)	73,005	73,151	146	0.20
Bayswater (C)	46,127	46,164	37	0.08
Kalamunda (S)	48,207	48,206	-1	0.00
Perth (C) - Wembley-Coastal	20,897	20,895	-2	-0.01
Stirling (C) - Central	103,500	103,375	-125	-0.12
East Fremantle (T)	6,426	6,416	-10	-0.16
Cottesloe (T)	7,541	7,507	-34	-0.45
Subiaco (C)	15,084	15,011	-73	-0.48
Nedlands (C)	20,696	20,588	-108	-0.52
Total	1,221,181	1,238,842	17,661	1.45
REMAINDER OF STATE				
Greenough (S)	9,379	9,994	615	6.56
Leonora (S)	2,518	2,678	160	6.35
Toodyay (S)	2,849	3,000	151	5.30
Westonia (S)	271	285	14	5.17
Nannup (S)	1,137	1,195	58	5.10
Cue (S)	610	641	31	5.08
Busselton (S)	15,616	16,373	757	4.85
Northam (S)	3,054	3,199	145	4.75
Wyndham-East Kimberley (S)	5,826	6,098	272	4.67
Halls Creek (S)	2,612	2,726	114	4.36
Mandurah (C)	34,168	35,639	1,471	4.31
Yilgarn (S)	2,157	2,246	89	4.13
Northampton (S)	2,907	3,022	115	3.96
Kalgoorlie-Boulder (C)	27,122	28,154	1,032	3.81
Irwin (S)	2,363	2,451	88	3.72
Mount Magnet (S)	1,132	1,173	41	3.62

TABLE 4.6 — RESIDENT POPULATION (E.R.P.)
30 JUNE 1993 AND 30 JUNE 1994
STATISTICAL LOCAL AREAS RANKED BY GROWTH (continued)
Reference: Catalogue No. 3203.5

Statistical Local Area	1993	1994	Population change	Per cent change
Dardanup (S)	5,967	6,181	214	3.59
Coolgardie (S)	5,499	5,673	174	3.16
Chittering (S)	2,338	2,403	65	2.78
Denmark (S)	3,619	3,716	97	2.68
Bridgetown-Greenbushes (S)	4,071	4,178	107	2.63
Albany (S)	11,873	12,185	312	2.63
Victoria Plains (S)	996	1,021	25	2.51
Woodanilling (S)	399	409	10	2.51
Capel (S)	5,861	6,007	146	2.49
Cuballing (S)	808	828	20	2.48
Broome (S)	8,157	8,356	199	2.44
Augusta-Margaret River (S)	6,974	7,141	167	2.39
Dowerin (S)	869	887	18	2.07
York (S)	2,738	2,794	56	2.05
Murray (S)	9,235	9,423	188	2.04
Exmouth (S)	2,370	2,418	48	2.03
Wiluna (S)	398	406	8	2.01
Harvey (S)	14,335	14,610	275	1.92
Ngaanyatjarraku (S)	1,212	1,235	23	1.90
Broomehill (S)	530	540	10	1.89
Beverley (S)	1,455	1,482	27	1.86
Mullewa (S)	1,348	1,373	25	1.85
Warooka (S)	3,174	3,226	52	1.64
Murchison (S)	127	129	2	1.57
Shark Bay (S)	856	869	13	1.52
Meekatharra (S)	1,881	1,909	28	1.49
Donnybrook- Balingup (S)	4,236	4,298	62	1.46
Dandaragan (S)	2,364	2,398	34	1.44
Narrogin (S)	861	873	12	1.39
Perenjori (S)	744	754	10	1.34
Esperance (S)	11,505	11,651	146	1.27
Pingelly (S)	1,199	1,212	13	1.08
Derby-West Kimberley (S)	6,938	7,012	74	1.07
Dundas (S)	1,611	1,628	17	1.06
Moora (S)	2,756	2,780	24	0.87
Boddington (S)	1,429	1,440	11	0.77
Geraldton (C)	21,319	21,451	132	0.62
Albany (T)	15,617	15,713	96	0.61
Plantagenet (S)	4,408	4,434	26	0.59
Mount Marshall (S)	723	727	4	0.55
Cranbrook (S)	1,187	1,193	6	0.51
Chapman Valley (S)	838	842	4	0.48
Bunbury (C)	27,812	27,917	105	0.38
Manjimup (S)	10,225	10,263	38	0.37
Ravensthorpe (S)	1,409	1,414	5	0.35
Nungarin (S)	313	314	1	0.32
Ashburton (S)	7,283	7,304	21	0.29
East Pilbara (S)	9,406	9,431	25	0.27
Bruce Rock (S)	1,277	1,279	2	0.16
Kulin (S)	1,069	1,070	1	0.09
Kent (S)	832	832	0	0.00
Corrigin (S)	1,377	1,377	0	0.00
Gingin (S)	3,246	3,240	0	0.00
Narembeen (S)	1,018	1,018	0	0.00
Mingenew (S)	638	638	0	0.00

TABLE 4.6 — RESIDENT POPULATION (E.R.P.)
30 JUNE 1993 AND 30 JUNE 1994
STATISTICAL LOCAL AREAS RANKED BY GROWTH (continued)
 Reference: Catalogue No. 3203.5

<i>Statistical Local Area</i>	<i>1993</i>	<i>1994</i>	<i>Population change</i>	<i>Per cent change</i>
Wagin (S)	1,987	1,986	-1	-0.05
Brookton (S)	1,019	1,016	-3	-0.29
Merredin (S)	3,839	3,827	-12	-0.31
Collie (S)	9,489	9,441	-48	-0.51
Roebourne (S)	14,913	14,835	-78	-0.52
Wongan-Ballidu (S)	1,697	1,688	-9	-0.53
Kellerberrin (S)	1,317	1,309	-8	-0.61
Port Hedland (T)	11,970	11,889	-81	-0.68
Sandstone (S)	258	256	-2	-0.78
Morawa (S)	1,027	1,019	-8	-0.78
Carnarvon (S)	6,630	6,577	-53	-0.80
Cunderdin (S)	1,489	1,476	-13	-0.87
Northam (T)	6,765	6,704	-61	-0.90
Yalgoo (S)	419	415	-4	-0.95
Wandering (S)	402	398	-4	-1.00
Wyalkatchem (S)	645	638	-7	-1.09
Narrogin (T)	4,882	4,827	-55	-1.13
Quairading (S)	1,183	1,169	-14	-1.18
Dumbleyung (S)	865	852	-13	-1.50
Dalwallinu (S)	1,769	1,739	-30	-1.70
Gnowangerup (S)	1,849	1,817	-32	-1.73
Katanning (S)	4,840	4,754	-86	-1.78
Mukinbudin (S)	690	677	-13	-1.88
Tambellup (S)	739	725	-14	-1.89
Boyup Brook (S)	1,793	1,756	-37	-2.06
Wickepin (S)	917	897	-20	-2.18
Goomalling (S)	1,119	1,094	-25	-2.23
Lake Grace (S)	1,843	1,800	-43	-2.33
Kondinin (S)	1,134	1,104	-30	-2.65
Coorow (S)	1,561	1,515	-46	-2.95
Carnamah (S)	1,078	1,046	-32	-2.97
Three Springs (S)	870	844	-26	-2.99
Jerramungup (S)	1,415	1,372	-43	-3.04
Laverton (S)	1,666	1,612	-54	-3.24
West Arthur (S)	1,038	1,004	-34	-3.28
Williams (S)	1,056	1,021	-35	-3.31
Menzies (S)	238	230	-8	-3.36
Kojonup (S)	2,400	2,313	-87	-3.63
Upper Gascoyne (S)	272	262	-10	-3.68
Tammin (S)	468	448	-20	-4.27
Trayning (S)	536	504	-32	-5.97
Koorda (S)	622	584	-38	-6.11
<i>Total</i>	<i>455,160</i>	<i>462,222</i>	<i>7,062</i>	<i>1.55</i>
TOTAL				
WESTERN AUSTRALIA	1,676,341	1,701,064	24,723	1.47

(C) City (T) Town (S) Shire

Vital Statistics

Registration

Registration of births, deaths and marriages in Western Australia is compulsory. Particulars reported to District Registrars are sent to the Registrar General at Perth, where a central registry is maintained. Local registers are kept at each district office.

Births are required to be registered within 60 days of the event, and a fetal death (stillbirth) must be registered both as a birth and a death. Deaths are required to be registered within 14 days. Marriage certificates must be lodged for registration within 14 days of the date of marriage. Statistics of births, deaths and marriages are prepared from registration documents.

Births

Although there were more males than females born in each of the years for which data are included in Table 4.7, the sex ratio (number of male live births per 100 female live births) tends to fluctuate and the movement shown does not necessarily indicate a trend.

TABLE 4.7 - BIRTHS REGISTERED BY AGE OF MOTHER (a)

Reference: Unpublished table: BTHR0007

<i>Age of mother (years)</i>	1992	1993	1994
TOTAL BIRTHS (b)			
Under 20	1,539	1,451	1,533
20 - 24	5,134	5,005	4,974
25 - 29	8,681	8,494	8,405
30 - 34	7,020	7,300	7,230
35 - 39	2,270	2,444	2,582
40 - 44	364	349	395
45 and over	13	8	15
Not stated	52	30	4
Total	25,073	25,081	25,138
Males	12,879	12,925	12,867
Females	12,194	12,156	12,271
Sex ratio (c)	105.6	106.3	104.9
Crude birth rate (d)	15.1	15.0	14.8
EX-NUPTIAL BIRTHS			
Under 20	1,341	1,322	1,395
20 - 24	2,347	2,440	2,542
25 - 29	1,514	1,668	1,680
30 - 34	961	1,041	1,073
35 - 39	384	411	440
40 - 44	79	80	83
45 and over	1	3	3
Not stated	46	26	4
Total	6,673	6,991	7,220

(a) Figures relate to State of usual residence of mother. (b) Includes ex-nuptial births. (c) Number of male live births per 100 female live births. (d) Number of live births registered during the calendar year per 1,000 of mean population.

Ex-nuptial Live Births A birth is registered as ex-nuptial if the parents are not married to each other at the time of the confinement.

The proportion of ex-nuptial births to total births has increased from 26.6 per cent in 1992 to 28.7 per cent in 1994. In 1994 mothers under the age of 25 accounted for 54.5 per cent of ex-nuptial births and 25.9 per cent of total births. For mothers aged less than 20 years, 91.0 per cent of births were ex-nuptial.

TABLE 4.8 - BIRTHS: WESTERN AUSTRALIA IN RELATION TO AUSTRALIA, 1994

Reference: Catalogue No. 3301.0

	Western Australia	Australia
Number of births—		
Nuptial	17,918	191,959
Ex-nuptial	7,220	66,092
Total	25,138	258,051
Crude birth rate (a)	14.8	14.5
Age-specific birth rate (b)—		
15 - 19	24.9	20.7
20 - 24	73.6	69.2
25 - 29	130.3	126.0
30 - 34	102.6	105.1
35 - 39	37.5	41.2
40 - 44	6.1	6.7
45 - 49	0.3	0.3
Female net reproduction rate (c)	0.900	0.882

(a) Per 1,000 mean resident population. (b) Live births per 1,000 women in each age group. Births to mothers under 15 are included in the 15-19 age group, and births to mothers aged 50 and over are included in the 45-49 age group. (c) Obtained by multiplying the female age-specific birth rates by the proportion of survivors of corresponding ages in a life table, adding the products and dividing by 1,000. Because of the method of calculation, these figures are subject to annual fluctuations which may not be indicative of a longer term trend.

The figures in Table 4.8 show that the crude birth rates (the number of total births per thousand mean resident population) for Western Australia and Australia are 14.8 and 14.5 respectively. The proportion of ex-nuptial births to total births in Western Australia is higher (28.7 per cent) than the figure for Australia (25.6 per cent).

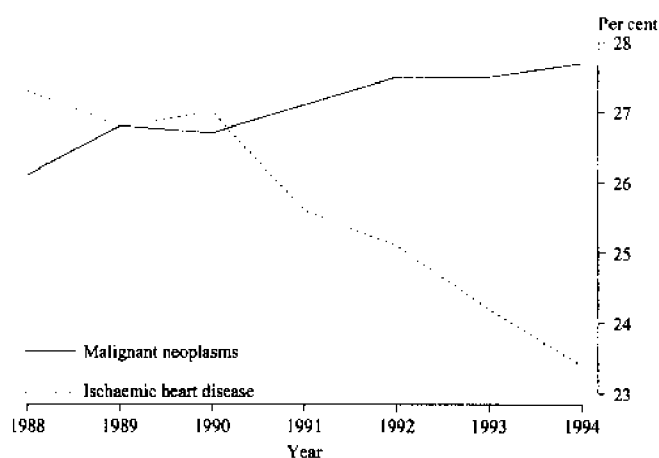
Deaths

Cause of death

In 1994:

- 27.7 per cent of deaths were from malignant neoplasms (cancers) of which cancer of the respiratory and intrathoracic organs was the major cause;
- 2,413 persons (or 23.4 per cent of total deaths), died of ischaemic heart disease in Western Australia; and
- 1,039 persons died of cerebrovascular disease, representing 10.1 per cent of total deaths in Western Australia.

DIAGRAM 4.1
DEATHS FROM MALIGNANT NEOPLASMS AND ISCHAEMIC
HEART DISEASE
1988-94



Source: Catalogue No. 3303.0

TABLE 4.9 - DEATHS: WESTERN AUSTRALIA
IN RELATION TO AUSTRALIA, 1994
 Reference: Catalogue No. 3302.0

	Western Australia	Australia
Number of deaths	10,293	126,692
Crude death rate (a)	6.1	7.1
Infant death rate (b)	5.6	5.9
Age-specific death rate (years) (c)—		
Males —		
Under 1 year	5.4	6.5
1 - 9	0.2	0.3
10 - 19	0.6	0.5
20 - 29	1.3	1.2
30 - 39	1.4	1.4
40 - 49	2.1	2.4
50 - 59	6.0	6.1
60 - 69	17.6	18.8
70 - 79	44.3	48.2
80 and over	127.0	132.6
Females —		
Under 1 year	5.7	5.2
1 - 9	0.2	0.2
10 - 19	0.2	0.2
20 - 29	0.4	0.4
30 - 39	0.6	0.6
40 - 49	1.4	1.4
50 - 59	3.4	3.6
60 - 69	9.6	9.9
70 - 79	25.2	27.1
80 and over	94.7	102.7

(a) Per 1,000 mean resident population. (b) Infant deaths per 1,000 live births. (c) Number of deaths per 1,000 persons in each age group. Excludes fetal deaths.

TABLE 4.10 - PRINCIPAL CAUSES OF DEATH, 1994 (a)
Reference: Catalogue No. 3303.0

Cause of death and International number (b)	Western Australia			Australia		
	Persons	Per cent of all deaths	Rate (c)	Persons	Per cent of all deaths	Rate (c)
Infectious and parasitic diseases (001-139)	72	0.7	4.2	1,042	0.8	5.8
Neoplasms (140-239)---						
Malignant (140-208)---						
Respiratory and intrathoracic organs (160-165)	639	6.2	37.5	7,208	5.7	40.4
Genitourinary organs (179-189)	419	4.1	24.6	5,518	4.4	30.9
Lymphatic and haematopoietic tissue (200-208)	268	2.6	15.7	3,348	2.6	18.8
Other	1,525	14.8	89.6	17,584	13.9	98.5
Benign, other and unspecified (210-239)	38	0.4	2.2	545	0.4	3.1
Endocrine, nutritional and metabolic diseases (240-279)	345	3.4	20.3	4,111	3.2	23.0
Diseases of blood and blood-forming organs (280-289)	33	0.3	1.9	401	0.3	2.2
Mental disorders (290-319)	223	2.2	13.1	2,985	2.4	16.7
Diseases of the nervous system and sense organs (320-389)	253	2.5	14.9	2,944	2.3	16.5
Diseases of the circulatory system (390-459)---						
Ischaemic heart disease (410-414)	2,413	23.4	141.7	30,573	24.1	171.3
Cerebrovascular disease (430-438)	1,039	10.1	61.0	12,838	10.1	71.9
Other	778	7.6	45.7	11,475	9.1	64.3
Diseases of the respiratory system (460-519)---						
Chronic obstructive pulmonary disease (490-496)	473	4.6	27.8	6,713	5.3	37.6
Other	290	2.8	17.0	3,245	2.6	18.2
Diseases of the digestive system (520-579)	339	3.3	19.9	3,858	3.0	21.6
Diseases of the genitourinary system (580-629)	131	1.3	7.7	2,110	1.7	11.8
Diseases of the skin and subcutaneous tissue (680-709)	21	0.2	1.2	211	0.2	1.2
Diseases of the musculoskeletal system and connective tissue (710-739)	72	0.7	4.2	775	0.6	4.3
Congenital anomalies (740-759)	63	0.6	3.7	754	0.6	4.2
Certain conditions originating in the perinatal period (760-779)	57	0.6	3.3	695	0.5	3.9
Symptoms, signs and ill-defined conditions (780-799)	58	0.6	3.4	547	0.4	3.1
Accidents, poisonings and violence (800-999)---						
Motor vehicle traffic accidents (810-819)	226	2.2	13.3	1,959	1.5	11.0
Suicide and self inflicted injury (950-959)	217	2.1	12.7	2,258	1.8	12.7
Other	300	2.9	17.6	2,970	2.3	16.6
All causes	10,293	100.0	604.6	126,683	100.0	709.9

(a) Based on State of usual residence. Fetal deaths are excluded. (b) Classified in accordance with the *International Classification of Diseases* (Ninth revision, 1975), operative from 1 January 1979. (c) Per 100,000 of mean resident population.

Infant and Perinatal deaths

Since deaths within the first four weeks of life (*neonatal deaths*) are mainly due to conditions originating before or during birth, conditions which can also cause stillbirths (*fetal deaths*), special tabulations are prepared combining the two. These are termed *Perinatal deaths*. *Infant deaths* are the deaths of all live-born children who died when less than one year old.

TABLE 4.11 – PERINATAL DEATHS (a): NUMBER AND RATES, 1994

Reference: Unpublished tables used for preparation of Catalogue No. 3311.5

	<i>Western Australia</i>	
	<i>Number</i>	<i>Rate</i>
Fetal deaths	176	7.0
Neonatal deaths—		
Under 1 day	46	1.8
1 day and under 7 days	22	0.9
7 days and under 28 days	14	0.6
<i>Total</i>	82	3.3
Total perinatal deaths (b)	258	10.3

(a) The statistical definition of perinatal deaths in Western Australia was amended in the Registration of Births, Deaths and Marriages Amendment Regulations of December 1990 and now includes all fetuses and infants delivered weighing at least 400 grams or, when birthweight is unavailable, the corresponding age of 20 weeks gestation. (b) The rates for fetal deaths and perinatal deaths are calculated per thousand live births only.

TABLE 4.12 – INFANT DEATHS: CAUSES OF DEATH, 1994 (a)

Reference: Unpublished table: CD1

<i>Causes of death and International number (b)</i>	<i>Western Australia</i>	
	<i>Number</i>	<i>Per cent of all infant deaths</i>
Causes mainly of prenatal and natal origin (740-779)—		
Congenital anomalies (740-759)	39	27.9
Immaturity (765)	18	12.9
Birth trauma (767)	8	5.7
Hypoxia and birth asphyxia (768)	5	3.6
Respiratory distress syndrome (769)	3	2.1
Other respiratory conditions (770)	7	5.0
Infections specific to the perinatal period (771)	6	4.3
Fetal and neonatal haemorrhage (772)	2	1.4
Other	7	5.0
<i>Total</i>	95	67.9
Causes mainly of postnatal origin—		
Sudden death, cause unknown (798)	26	18.6
All other causes	19	13.6
<i>Total</i>	45	32.1
All causes	140	100.0

(a) Based on State of usual residence. Fetal deaths are excluded. (b) Classified in accordance with the *International Classification of Diseases* (Ninth revision), operative from 1 January 1979.

Life Expectancy

A life table is a life history of a hypothetical group, or cohort of people, as it is diminished gradually by deaths. A key value in life tables is the expectation of life remaining at each age.

The Australian Bureau of Statistics has produced life tables for Western Australia dating back to 1971. In that year, expectation of life at birth was 68.4 years for males, and 75.3 years for females. In 1994 it had risen to 75.55 and 81.18 years respectively. Life expectancy at birth for males has therefore increased slightly more than for females over this period; however female life expectancy is still more than five and one half years greater than that of males.

TABLE 4.13 - COMPLETE EXPECTATION OF LIFE AT SELECTED AGES (a), WESTERN AUSTRALIA (years)

Age	Expectation of life (b)		
	1992	1993	1994 ^p
Birth—			
Males	75.24	75.05	75.55
Females	80.90	81.15	81.18
1 year—			
Males	74.81	74.60	74.96
Females	80.41	80.51	80.64
20 years—			
Males	56.37	56.12	56.45
Females	61.78	61.81	62.36
40 years—			
Males	37.58	37.42	37.74
Females	42.42	42.33	42.87
60 years—			
Males	19.65	19.62	19.91
Females	23.97	23.79	24.34
70 years—			
Males	12.43	12.38	12.68
Females	15.83	15.60	16.06
80 years—			
Males	7.10	7.04	7.15
Females	9.11	8.82	9.10

(a) Based on annual life tables calculated by the Australian Statistician. These figures are based on resident population. (b) The average number of additional years a person of given age and sex might expect to live if the age-specific death rates of the given period continued throughout their lifetime.

Marriages

During 1994:

- 4,835 marriages were performed by ministers of religion, (representing 46.6 per cent of all marriages);
- 5,531 marriages (53.4 per cent) were performed by registered civil celebrants; and
- Catholic marriages were the largest denomination, with a total of 1,777 (17.1 per cent), followed by Anglican marriages with 1,197 (11.5 per cent) of all marriages.

TABLE 4.14 - MARRIAGES: CATEGORY OF CELEBRANT, 1994
Reference: Catalogue No. 3310.0

Category of celebrant	Western Australia		Australia	
	Number	Per cent of total	Number	Per cent of total
Ministers of religion of recognised denominations (a)—				
Catholic Church	1,777	17.1	21,808	19.6
Anglican Church of Australia	1,197	11.5	14,372	12.9
Uniting Churches of Australia (b)	617	6.0	9,985	9.0
Presbyterian Church of Australia (b)	23	0.2	1,614	1.5
Orthodox Churches (b)	90	0.9	2,965	2.7
Baptist Union of Australia (b)	154	1.5	2,095	1.9
Lutheran Churches (b)	49	0.5	1,236	1.1
Churches of Christ in Australia (b)	175	1.7	1,228	1.1
Other Denominations	753	7.3	7,962	7.2
Total	4,835	46.6	63,265	56.9
Civil celebrants—				
Official registrars	878	8.5	8,912	8.0
Other civil celebrants	4,653	44.9	38,997	35.1
Total	5,531	53.4	47,909	43.1
All celebrants	10,366	100.0	111,174	100.0

(a) Under authority of the Australian Marriages Act 1961. (b) Includes churches grouped under this heading as proclaimed under the Australian Marriages Act 1961.

TABLE 4.15 - MEDIAN AGE OF BRIDEGROOMS AND BRIDES (a)
(years)
Reference: Catalogue No. 3310.0

Marital status	1990	1991	1992	1993	1994
Bridegrooms—					
Never married	26.4	26.8	27.0	27.1	27.4
Widowed	61.0	62.8	59.4	59.8	62.2
Divorced	39.6	39.5	40.7	40.3	41.6
All bridegrooms	28.3	28.6	29.1	29.3	29.5
Brides—					
Never married	24.1	24.4	24.7	24.8	25.2
Widowed	53.6	52.0	52.6	52.0	53.7
Divorced	36.0	36.3	37.0	37.4	37.8
All brides	25.8	26.1	26.5	26.5	26.9

(a) The median age is that age which divides the reference population into two halves, one half being below the median age and one half above.

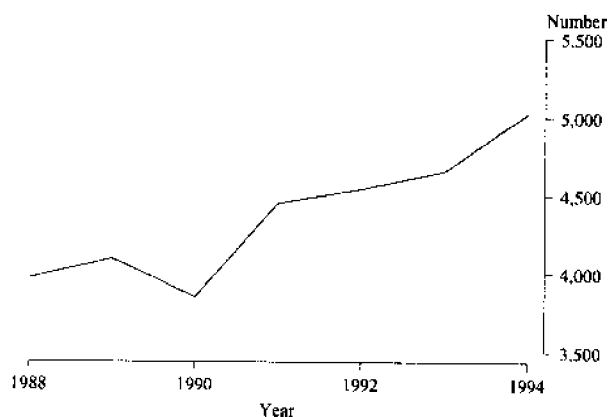
Divorces

In 1994:

- there were 5,024 divorces, an increase of 370 (8.0 per cent) on the number of divorces recorded in 1993;

- over 40 per cent of marriage dissolutions occurred when the duration of the marriage was nine years or less; and
- since 1990 there has been an increase in the number of divorces in each successive calendar year.

DIAGRAM 4.2
DIVORCES GRANTED
1988-94



Source: Catalogue No. 3307.0

TABLE 4.16 - DISSOLUTIONS OF MARRIAGE, 1994
Reference: Unpublished table DIVR0013

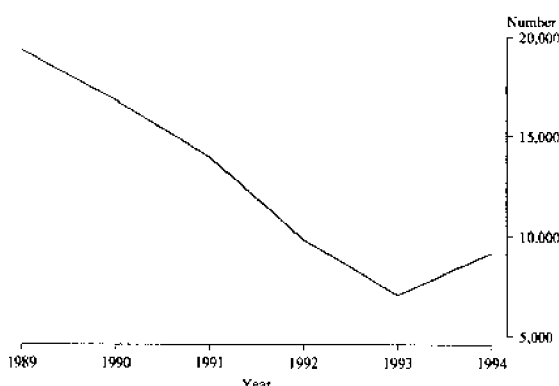
Duration (years)	Western Australia		Australia	
	Number	Per cent of total	Number	Per cent of total
Under 5	908	18.1	9,522	19.7
5 - 9	1,275	25.4	12,861	26.7
10 - 14	1,016	20.2	9,002	18.7
15 - 19	703	14.0	6,034	12.5
20 - 24	531	10.6	5,219	10.8
25 - 29	339	6.7	3,247	6.7
30 and over	252	5.0	2,371	4.9
Total (a)	5,024	100.0	48,256	100.0

(a) Includes duration of marriage not stated.

Overseas Migration

Permanent movement deals with arrivals of settlers (persons who hold migrant visas regardless of stated intended period of stay), New Zealand citizens who indicate an intention to settle and those who are otherwise eligible to settle, for example, the overseas born children of Australian citizens. Permanent movements also include the departures of Australian residents, including former settlers, who on departure state that they do not intend to return to Australia. The departure rate dropped only slightly from 3,500 in 1993 to 3,450 in 1994 (Table 4.17).

DIAGRAM 43
TOTAL PERMANENT SETTLER ARRIVALS



Source: Unpublished table PMTR 001A

TABLE 4.17 - PERMANENT DEPARTURES BY CATEGORY
Reference: Catalogue No. 3404.0

Period	Former settlers	Australian residents	Total
ANNUAL AVERAGES			
1976-1980	2,270	1,010	3,280
1981-1985	1,970	1,010	2,980
1986-1990	1,854	1,286	3,140
ANNUAL TOTALS			
1991	2,660	1,630	4,300
1992	2,060	1,590	3,650
1993	1,900	1,600	3,500
1994	1,820	1,630	3,450

In 1994 there were 9,130 permanent settler arrivals - an increase of 2,100 (29.9 per cent), compared with 1993. The main sources of permanent settlers were the United Kingdom and Ireland (2,560), New Zealand (1,120), and South Africa (600). The United Kingdom and Ireland and New Zealand accounted for 40.3 per cent of all permanent arrivals. There has been an upturn in the number of permanent settler arrivals to Western Australia. There were 19,290 in 1989, 16,780 in 1990, 13,930 in 1991, 9,820 in 1992, 7,030 in 1993, and 9,130 in 1994. Diagram 4.3 illustrates this trend.

**TABLE 4.18 - PERMANENT (SETTLER) ARRIVALS
BY SELECTED COUNTRY OF BIRTH 1994(a)**

Reference: Unpublished table PMTR 0018

<i>Country of birth</i>	<i>Australia</i>	<i>Western Australia</i>
<i>Oceania and Antarctica</i>	11,490	1,190
New Zealand	8,970	1,120
Other	2,520	70
<i>Europe and the former USSR</i>	22,990	3,700
France	330	40
Germany	780	100
Italy	360	40
Netherlands	320	60
Poland	660	80
Romania	330	30
Switzerland	250	60
United Kingdom & Ireland	10,330	2,560
Former Yugoslav Republics	5,750	500
Other	3,430	230
<i>Middle East and North Africa</i>	5,820	330
Iraq	1,780	140
Other	4,040	190
<i>Southeast Asia</i>	14,790	1,870
Burma	580	380
Indonesia	670	160
Malaysia	1,160	300
Philippines	4,050	240
Singapore	620	240
Thailand	820	90
Viet Nam	5,350	420
Other	1,540	40
<i>Northeast Asia</i>	8,590	360
China	2,940	120
Hong Kong	3,640	140
Japan	490	40
Korea, South	720	30
Taiwan	710	30
Other	90	—
<i>Southern Asia</i>	6,380	440
India	3,130	300
Pakistan	460	30
Sri Lanka	1,820	80
Other	970	30
<i>Northern America</i>	2,320	230
Canada	760	80
United States of America	1,550	150
Other	10	—
<i>South & Central America & Caribbean</i>	1,190	50
El Salvador	160	20
Other	1,030	30
<i>Africa (excluding North Africa)</i>	4,300	940
Ethiopia	420	50
Kenya	180	80
Somalia	420	30
South Africa	2,390	600
Zimbabwe	200	70
Other	690	110
Total	77,940	9,130

(a) Figures are rounded to the nearest ten.

References

- 1991 Census — A Guide to Products and Services* (2910.0)
Australian Demographic Statistics (3101.0)
Births, Australia (3301.0)
Causes of Death, Australia (3303.0)
Deaths, Australia (3302.0)
Demography, Western Australia (3311.5)
Resident Population by Age and Sex in Statistical Local Areas, Western Australia (3203.5)
Resident Population by Age and Sex, States and Territories of Australia (3201.0)
Marriages and Divorces, Australia (3310.0)
Perinatal Deaths, Australia (3304.0)

*SOCIAL WELFARE
AND HEALTH*

Chapter 5

SOCIAL WELFARE AND HEALTH

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Chapter 5

SOCIAL WELFARE AND HEALTH

Much of the information for the sections in this chapter has been provided by the respective Commonwealth and State Government Departments and Authorities responsible for administering social welfare and health policies to the Western Australian community.

Social Welfare

The Commonwealth and State Governments and a large number of voluntary agencies provide social welfare services to meet the needs of the Western Australian population. The Commonwealth Government is concerned largely with providing fixed monetary pensions and benefits and repatriation services. It also provides, either directly or through State and local government authorities and voluntary agencies, a wide range of welfare services for people with special needs.

State agencies operate in the field of child welfare and distribute emergency relief in circumstances where Commonwealth Government assistance is not available. The voluntary agencies, many of which receive government aid, provide a wide range of services in various fields of social welfare.

Income Support through the Department of Social Security

The Social Security Portfolio has responsibility for six programs. Five of these are income security programs to meet the differing needs of the Department's clients and are based on supporting the following classes of need:

- Retired;
- People with Disabilities and the Sick;
- Unemployed;
- Families with Children; and
- Special Circumstances.

The sixth program provides support services for the income security programs and the Department.

Age Pensions

To qualify for the age pension, a man must be at least 65 years and a woman at least 60 years of age. The claimant must have lived in Australia for ten years. Reciprocal social security agreements may allow people to add together contributions in the

agreement country and residence in Australia to meet residency requirements for the Australian age pension.

At 30 June 1993 there were 121,387 persons claiming the age pension in Western Australia, plus 3,375 persons on wife/carer pensions. The total amount paid for such pensions in Western Australia was \$838,977,000. At the same period for Australia 1,555,709 persons received an age or wife/carer pension with a total amount paid of \$10,588,244,000. Pension rates per fortnight at June 1993 were single rate - \$312.10, married rate (each) - \$260.30, wife pension - \$260.30 and carer pension - \$312.10.

**TABLE 5.1 - PENSIONS, BENEFITS AND ALLOWANCES
30 JUNE 1993**

<i>Pension or benefit</i>	<i>Number</i>	<i>Amount paid \$'000</i>
Aged pension (a)	124,762	838,977
Disability Support/Invalid pension (a)	47,790	359,926
Child disability allowance (b)	7,636	15,451
Rehabilitation allowance (b)	41	1,282
Mobility allowance	1,037	1,119
Job search/Newstart allowance (c)	79,903	672,426
Sickness benefits (c)	4,090	32,419
Family allowance (d)	191,681	207,781
Family allowance supplement	78,882	n.a.
Sole parent pension	29,874	289,458
Double orphans pension	180	156
Special benefit (b)	2,745	21,666

(a) Includes wife's/carer's pension. (b) Amount paid includes pensions for wives, guardians etc. (c) Annual average number current. (d) Number of families.
Source: Department of Social Security, Annual Report, 1992-93

**TABLE 5.2 - NUMBER OF AUSTRALIAN PENSIONS PAID
OVERSEAS: 30 JUNE 1993**

<i>Pension or allowance type</i>	<i>Number</i>
Age pension (inc. wife/carer)	23,948
Disability Support pension (inc. wife/carer)	8,455
Wife pension	3,478
Class B Widow pension	1,683
Sole Parent pension	154
Total	37,718
Total Benefits Paid	\$220.9m

Source: Department of Social Security, Annual Report, 1992-93

Disability Support

The Income security for People with Disabilities and the Sick program is broken up into seven sub-programs. The disability support pension is aimed at men under 65 and women under 60 years of age who are unable to work full time at full award wages owing to a substantial physical, intellectual or psychiatric

impairment or who are permanently blind. A wife's pension may be paid to the wife of a disability support pensioner if she does not qualify for another pension in her own right. Carer pensions are payable to those who provide frequent personal care to a severely handicapped person.

Sickness allowance is paid to men aged 16 to 64 years and women aged 16 to 59 years who have suffered a loss of income or entitlement to Job Start Allowance or Newstart Allowance because they are temporarily incapacitated for work owing to illness or injury. Mobility allowance may be paid to people with disabilities who are aged 16 years and over and who are in paid or voluntary employment or vocational training or who are looking for work and who, because of their disability, are unable to use public transport without substantial assistance.

Child disability allowance provides assistance to a parent or guardian caring at home for children with disabilities. Postal concessions for the blind are paid to assist them by supplementing postal charges for braille and other postal charges.

Unemployed

Since July 1991, a new active strategy for income support has operated for people who are unemployed. The new system, known as Newstart, has as its objective to actively assist the unemployed seeking employment back into paid work. The Income Security for the Unemployed program pays Job Start Allowance and Newstart Allowance to people who are actively seeking employment, or are improving their opportunities by, for example, undertaking education training courses or rehabilitation.

At June 1993, in Western Australia an annual average of 79,903 persons were in receipt of Job Search or Newstart allowance for an annual payment of \$672,426,000.

The primary objective of the Job Search Allowance is to support (and require) active job search, combined with training or other job preparation activities, while Newstart focuses on the special problems facing the long-term unemployed.

Family Support

From January 1993, a major restructuring of assistance to families has been introduced. Family Allowance, Family Allowance Supplement, child payments for pensioners, beneficiaries and allowees, Guardian Allowance and Rent Assistance for eligible families with children have all been combined into a single integrated Family Payment. Under the new arrangements the maintenance income test will apply to all elements of the Family Payment except the Family Allowance component.

Eligible recipients may receive additional payments for dependent children, rent assistance and remote area allowance. Pension and benefit rates are aligned to the Consumer Price Index. In addition, the Department of Social Security provides, subject to eligibility

requirements, a Double Orphan's Pension, and a Sole Parent Pension (and supplementary Jobs, Education and Training assistance where appropriate).

Special Circumstances Special Benefits are aimed at providing income support for people who are unable to support themselves or their dependants but are not otherwise entitled to a pension or benefit. The major groups of recipients include:

- certain newly arrived migrants and refugees and their dependants;
- young people who have recently left education and are not eligible for Job Search Allowance but are from low income families;
- those receiving a Widows Pension; and
- those receiving Telephone Rental and Postal Concessions.

Fringe Benefits The majority of pension and allowance beneficiaries are entitled to a range of non-cash fringe benefits upon presentation of a concession card. The Department issues four types of health cards: pensioner health benefits card; health benefits card; health care card; and pharmaceutical benefits concession card. These cards are issued depending on the income and assets of the claimant and the type of social security payment being received. The cards may entitle the holder to a wide range of concessions including health, transport, household and recreation concessions which are provided by Government and semi-government authorities and private organisations.

Income Support through the Department of Veterans' Affairs The Department provides veterans and their dependants with a range of benefits, including service pensions and disability pensions to compensate veterans and their dependants for the effects of war or defence service.

Disability pension Where a veteran's incapacity or death is determined to be war or defence caused, compensation is provided in the form of pensions and associated allowances.

Service pension The main form of income support provided to veterans is the service pension. Introduced in 1935, it is an income and assets tested pension similar to the age pension paid by the Department of Social Security. However, the service pension is paid earlier than the age pension, at 55 for female veterans and at 60 for male veterans, in recognition of the intangible effects of qualifying service.

Dependents pensions War widow's/widower's pensions and orphan's pensions are paid to dependents of disability pensioners after the death of the veteran or member. Similarly, wives and widows of service pensioners may be entitled to a service pension.

**TABLE 5.3 – DISABILITY PENSIONS: 30 JUNE 1993
(number)**

<i>Type of service</i>	<i>Incapacitated veterans</i>	<i>Dependents(a)</i>	<i>Total</i>
World War 1	18	504	522
World War 2	10,032	12,449	22,481
Korea, Malaya and Far East Service Reserve	487	333	820
Special Overseas Service	1,128	879	2,007
Peacetime Forces & Gulf War	2,228	927	3,155
World War 2 Merchant Navy	15	5	20
Total	13,908	15,097	29,005

(a) Number of pensions payable to dependents of incapacitated or deceased veterans.
Source: Department of Veteran's Affairs Annual Report

**TABLE 5.4 – SERVICE PENSIONS: 30 JUNE 1993
(number)**

<i>Type of service</i>	<i>Payable to veterans</i>	<i>Payable to wives/ widows</i>	<i>Total</i>
World War 1	38	51	89
World War 2	14,110	9,994	24,104
Korea/Malaya	762	511	1,273
Special Overseas Service	570	387	957
British Commonwealth Forces	3,642	2,849	6,491
Allied Forces	412	331	743
Australian Mariners	158	119	277
British Commonwealth and Allied Mariners	68	45	113
Gulf War	1	0	0
Total	19,791	14,287	34,047

Source: Department of Veteran's Affairs Annual Report

Carer's pensions

Pensions are granted to persons who provide ongoing care in the home of a severely handicapped veteran service pensioner. The pension is a means-tested income support payment.

Allowances

Several allowances are provided to supplement service and disability pensions. These allowances vary according to the severity of disablement and the special needs of the pensioner. They include attendant's allowance, telephone allowance, rent assistance housing loan subsidies. An education allowance is paid for children of certain deceased, blinded, totally and permanently incapacitated veterans.

Department of Health, Housing, Local Government and Community Services

The Commonwealth Department of Health, Housing, Local Government and Community Services (HHLGCS) administers programs which provide or subsidise services offering universal access to housing and accommodation, primary health care, illness prevention and promotion of better health, assistance to local

government as well as services for the aged, children and people with disabilities.

These programs include: Health Advancement; Health Care Access; Aged Care; Disability Programs; Children's Services; and Housing and Urban Development.

Health Advancement

This program aims to improve the health of all Australians, to reduce differences in health status between social groups, and to promote high quality health research that improves the social and economic well-being of Australians. Major projects undertaken during 1992-93 included; a household survey on drug use and knowledge; a major revision of guidelines on lead in blood; evaluation of the national HIV/AIDS strategy; and development of a National Immunisation Strategy.

Health Care Access

The Health Care Access program covers Medicare benefits, the Pharmaceutical Benefits Scheme, hospitals, insurance and other health services and home and community care for people needing post-acute or palliative care. During 1992-93 new Medicare arrangements were made between the Commonwealth and the states. As well the Hospital Access Program was commenced with \$48.3m allocated to improve public patient access to elective surgery.

Aged Care

With a goal of enhancing the independence and quality of life of the frail aged and their carers, this program makes available high quality and cost-effective services appropriate to assessed need.

Disability Programs

The Disability program aims to support people with disabilities so that they can properly participate in society, especially in the labour market. The Commonwealth/State Disability Agreement was implemented in Western Australia during the year so that all states and territories are now covered. Nationwide 1,174 new employment places were created and 52 new employment services

**TABLE 5.5 - DISABILITY PROGRAM WESTERN AUSTRALIA,
JUNE 1992-93**

	<i>Number of services</i>	<i>Expenditure \$'000</i>
Rehabilitation	16	9,031
Accommodation (a)	92	17,524
Employment	65	8,719
Community participation (b)	22	6,329
Commonwealth State Disability Agreement	n.a.	1,927
Program management	n.a.	53
Total	195	43,583

(a) Includes accommodation support services, respite care service and the attendant care scheme. (b) Includes advocacy services, print disability services, information services, recreation services, independent living and training services, and research and development projects.

Source: Department of Health, Housing, Local Government and Community Services.

established. The Commonwealth Rehabilitation Service assisted 20,480 Department of Social Security clients, with 45 per cent who completed programs being placed in jobs.

Family and Children's Services

By extending choices available for families and children at home, at work and in the general community, this program aims to improve the quality of family life. In 1992-93, \$45.4 million was expended on grants for children's services and 563 operational services were conducted in Western Australia. The most numerous being 116 private long day care centres and 110 out-side school hours care centres.

Housing and Urban Development

A range of programs have been developed to assist households in the owner-occupied, public housing and private rental housing sectors. The Commonwealth Government provides funds for public housing, supported accommodation services, crisis accommodation, mortgage and rent relief, home purchase loans, and home purchase assistance to individuals and families. In 1992-93 an amended Commonwealth-State Housing Agreement will provide \$4 billion over four years, increasing public housing units to 400,000 by 1996. During the year Western Australia received \$105,721,000 in rental accommodation grants.

Department for Community Development

The Western Australian Department for Community Development deals with a range of issues and problems in working towards its objectives of enhancing the welfare of families, individuals and groups, particularly those who are disadvantaged; providing and promoting preventative community support and assistance to people; preventing abuse, neglect and exploitation of children; and responding to the needs of young offenders, their families, and carrying out orders of the court.

The range of welfare and community services provided by the Department fall broadly into five programs, each aimed at meeting particular policy objectives.

Family Services

The Family Services Program embraces a wide range of services including counselling, conflict resolution, accommodation services, crisis support for families, individuals and children, in-care placements for children in need of care, community based family and youth support, education support and, in conjunction with the Commonwealth Government, a range of quality, affordable child care facilities.

The Department's role varies from providing the service directly, negotiating with, and funding community agencies to providing services and assisting groups in the community to develop their own support groups or services.

Within the Family Services Program, sub-programs focus on Family and Individual Support, Education Services, Youth, Children's Services, and Out of Home and Alternative Care.

Financial and Material Assistance The objectives of this program are to assist financially disadvantaged people to address short-term financial emergencies, increase the affordability of essential goods and services and improve their ability to manage on a low income. Assistance is provided under the Concessional and Emergency Financial Assistance and Financial Counselling sub-programs.

Child Protection Through this program, the Department aims to reduce the incidence and damaging effects of child abuse and neglect, and to safeguard the child's right to protection and freedom from harm. This may be done by providing services for the assessment of allegations of harm to children; the provision of support and treatment services for victims, family members and perpetrators of harm; and the provision of education and community awareness programs.

During 1992-93, 5,570 allegations were recorded on the Department's Child Protection Information System. This represents a 27 per cent increase from 1991-92 and a 98 per cent increase over the number recorded in 1988-89. Of all the allegations reported to the Department 40 per cent were substantiated or the child considered at risk.

Young Offender Services The objectives of this program are to contribute to the prevention and reduction of juvenile crime and assist the just adjudication of offences alleged to have been committed by children in the juvenile justice system.

The program focuses on the dual aims of reducing offending through prevention and diversion, and targeting services to specific groups of offenders to ensure the effectiveness of those services. Prevention services will be extended to further reduce the number of first and minor offenders coming into contact with the formal justice system.

Community Affairs This program aims to ensure that communities have the resources to deliver accessible services which meet local social needs. It provides an avenue for the development and implementation of the Department's community focused work. Community focused solutions to common social issues can be achieved by the location of services and facilities in appropriate places and the establishment of community net-works. In 1992-93, the Department expended a total of \$36.6 million for non-government services. This was an increase of over 18 per cent on the previous year and represents approximately 31 per cent of the Department's total budget.

Disability Services Commission After seven and a half years in existence, the Authority for Intellectually Handicapped Persons has been replaced by the Disability Services Commission for the 1993-94 financial year. The aim of the new commission is to remove the artificial boundaries between people in general and between people who have

disabilities. Services and support will be provided so as to take account of these differences and respond to individual need.

The Western Australian Council of Social Service

The Western Australian Council of Social Service (WACOSS) is an independent organisation representing a wide range of interests in the field of social welfare, health and community services. The Council has individual members and organisational members, including voluntary agencies, self-help and community groups, professional associations and Commonwealth, State and Local government bodies.

WACOSS has four principal roles:

- to assist organisations within the community services sector develop professional, efficient, effective, and compassionate services;
- to act as a peak body to represent the views and needs of client groups and populations to government, the non-government sector, the media and the public;
- to educate people working within the field and the public about issues affecting social and community service organisation, their clients and people experiencing disadvantage; and
- to produce pro-active, powerful, principled and well informed policy.

One of the most important events in 1994 for WACOSS was the organisation's appointment as the Australians for Reconciliation Co-ordinators for Western Australia. WACOSS has been accepted by Aboriginal organisations for this role and the Council will work toward the National Reconciliation goal.

ABS Surveys

The ABS conducts surveys of relevance to social welfare.

Survey of Families in Australia

A survey was conducted between March and May 1992 to examine the ways in which family members support each other in areas of employment, income, housing, child care, personal care/home help, education and transport. A household family was defined as two or more people living in the same household who are related by blood, marriage, fostering or adoption. The ways in which family members who live in different households give and receive support was also surveyed along with patterns of cohabitation and the formation of alternative family structures.

The findings indicated there were 4,775,200 household families in Australia and 459,200 household families in Western Australia. Nationally 88 per cent of persons were living with at least one other family member in the same household. Registered married couple families with dependent children families made up 40 per cent of all families in Australia. Of Australia's 620,000 one parent families, 522,100 (84 per cent) were lone mother families. For all family types Western Australia reported levels consistent with the

national average. Further information may be obtained from *Australia's Families - Selected Findings from the Survey of Families in Australia March 1992 to May 1992* (Catalogue 4418.0).

Survey of Disability, Ageing and Carers

The 1993 Survey of Disability, Ageing and Carers was conducted to provide up-to-date data on types of disability, level of severity of handicap, current and future care needs, the need for and provision of help and the effects of the caring role on carers.

The survey estimated that 3,176,700 persons or 18.0 per cent of the Australian population had a disability. In Western Australia, 305,000 people or 18.2 per cent of the population had a disability. The most common disabling condition was arthritis and other musculoskeletal conditions which accounted for over a quarter of all reported conditions.

Australia-wide there were 577,500 carers of disabled persons in 1993. For Western Australia, the figure was 45,700 of whom 67 per cent were female.

Health

The Commonwealth and State Government health authorities, together with local government authorities, cooperate in maintaining health services and in the prevention and control of infectious diseases in Western Australia. Health services are also provided by other Commonwealth and State government bodies, religious or community based non-profit organisations, and by volunteer services.

Commonwealth Government Health Benefits and Services

Commonwealth activity in the health area is mainly concerned with the formulation of broad national policies, the provision of benefits and grants to individuals and organisations, and the regulation of health insurance. Services are primarily directed towards ensuring that all Australians have access to necessary health services at reasonable cost.

Medical Benefits

Medicare provides Australians and other eligible people with reimbursement for medical and optometrical services, free shared ward accommodation and treatment, and free out-patient treatment at public hospitals. Health insurance funds, which are regulated by the Commonwealth, provide medical cover for those electing to be treated privately by a 'doctor of choice' or have private ward accommodation in a public hospital. The Commonwealth provides substantial financial assistance to the States to support Medicare services.

TABLE 5.6 - MEDICARE: WESTERN AUSTRALIA
30 June 1993

Persons enrolled (a)	1,632,000
Services processed—	
General practitioner attendances	7,750,000
Specialist attendances	1,176,000
Pathology	3,505,000
Other	2,013,000
Total	14,444,000
Average services processed per enrolled person—	
Males	6.7
Females	10.6
Persons	8.6
Benefits paid	\$407,275,000

(a) Medicare enrollees include some persons who are not Australian residents (e.g. visitors). Consequently the number of enrollees may exceed the resident population. Figures are as at 30 June 1993.

Source: Health Insurance Commission, Annual Report, 1992-93

Health Insurance

The Health Insurance Commission pays Medicare and pharmaceutical benefits as provided for in the Health Insurance Act. It also undertakes measures to detect and prevent medical fraud and excessive servicing with respect to the payment of

benefits and provides services for the processing of the Department of Veterans' Affairs treatment accounts.

Veterans and Dependants

The Commonwealth meets the costs for eligible veterans and their dependants of specialist, local medical officer, paramedical, dental services, the supply and maintenance of surgical aids, and travelling and other expenses incurred in obtaining medical treatment. Repatriation hospitals and clinics are maintained in each State for the treatment of eligible veterans and their dependants. Community patients are admitted to Repatriation hospitals free of charge if spare beds are available and the facilities are suitable for the treatment required. Conversely, veterans and their dependants may, where appropriate, be admitted to private or State public hospitals, generally at Commonwealth expense.

State Public Hospitals

Apart from Commonwealth outlays for free hospital care under Medicare, the Commonwealth also contributes to the upgrading of the infrastructure of State public hospitals through the Hospital Enhancement Program. In 1992-93 the Commonwealth committed \$21.1 million for general capital projects and \$15.7 million for the installation and operation of 16 Magnetic Resonance imaging units in Australian public hospitals.

TABLE 5.7 - HOSPITALS AND BEDS(a): STATES AND TERRITORIES AT 30 JUNE 1992

	NSW (b)	Vic	Qld	WA	SA	Tas	NT	ACT	Aust
HOSPITALS									
Recognised (public) hospitals	203	157	150	88	80	19	5	3	705
Private hospitals	90	111	49	22	38	7	1	2	320
Day hospital facilities(c)	45	21	4	4	1	—	—	4	79
All hospitals	338	289	203	114	119	26	6	9	1,104
BEDS									
Recognised (public) hospitals	20,115	13,192	9,997	4,795	5,281	1,486	591	819	56,276
Private hospitals (licensed)	6,105	6,284	4,371	2,026	2,235	634	150	169	21,974
Day hospital facilities(c)	281	158	39	57	12	—	—	14	561
All hospitals	26,501	19,634	14,407	6,878	7,528	2,120	741	1,002	78,811
Beds per 1 000 population	4.4	4.4	4.7	4.1	5.2	4.5	4.4	3.4	4.5

(a) Based on data provided by State/Territory Health Authorities. (b) NSW recognised (public) hospital beds are calculated on an average of beds available at the end of each month but discounted for adjustments affecting December and January. (c) Day hospital facilities are private free-standing day hospital facilities as approved for the purpose of the National Health Act 1953

Source: Department of Health, Housing and Community Services, Annual Report

Nursing Home Subsidies and Domiciliary Care Services

Nursing home subsidies are provided to ensure that those people who are assessed as needing nursing home care, have access to residential support and care which is appropriate to their needs. The Commonwealth meets the approved operating deficits of eligible non-profit nursing homes for persons with disabilities. In addition, nursing home benefits are paid to a small number of nursing homes for people with disabilities. During 1992-93 recurrent expenditure on nursing home benefits totalled \$134.6 million in Western Australia (\$1,680.9 million nationally).

Domiciliary nursing home care benefits and services are provided to assist frail aged and young disabled people, who would otherwise require nursing home admission, to remain in the community. The Domiciliary Nursing Care Benefit provides financial support to carers of frail aged people and people with disabilities who would otherwise require nursing home care. During 1992-93 the Domiciliary Nursing Care Benefit recurrent expenditure of Western Australia was \$3.7 million (\$40.3 Million Australia-wide) and the total number of people being cared for was 3,470 (35,474 in Australia).

Pharmaceutical Benefits Scheme

The Pharmaceutical Benefits Scheme (PBS) aims to provide Australians with access to a wide range of pharmaceuticals at affordable prices. The Health Insurance Commission administers the PBS on behalf of the Commonwealth. It processes pharmacist's claims, reimburses them for medication dispensed and undertakes tasks associated with the detection and prevention of abuse.

During 1992-93, some 106 million prescriptions were prescribed nationally at a cost of \$1,419 million. Cardiovascular and central nervous system pharmaceuticals were the two most commonly prescribed categories of drug groups at 20.1 and 18.9 per cent of all prescriptions respectively. In Western Australia during the same period 8.3 million prescriptions were issued at a cost of \$108.1 million.

Health research

Commonwealth support for health research activities, generally provided in the form of project, program, institute and research unit grants, covers medical and public health research. Support includes financial assistance through the Medical Research Endowment Fund and the Public Health Research and Development Committee. Nationally this was \$103.4 million and \$8.4 million respectively during 1992-93.

The Commonwealth provides financial assistance for a wide range of health promotion and disease prevention activities that emphasise prevention in contrast to the dominant curative approach.

National AIDS Program

The National Health Promotion Program, which supports community based initiatives to promote better health and to

The Western Australian Child Health Survey

The Western Australian Child Health Survey, a large scale epidemiological survey of the health and well-being of Western Australian children aged 4 to 16 years, was conducted from July to September, 1993. Based on a 1983 survey conducted in Ontario, Canada, the survey provides a comprehensive picture of the mental and physical health status of Western Australian children.

The survey was conducted by the Institute for Child Health Research, in consultation with the ABS. The active input of government departments and other agencies in the survey design ensured that important policy questions were addressed and that critical information was obtained to assist the planning and effective delivery of services to Western Australian children, adolescents and families in the 1990's.

A feature of this survey is its emphasis on identifying the development and environmental factors which enable and develop adolescent competency, resiliency, and employment readiness.

Specifically, the aims of the survey were to:

- Estimate the prevalence and distribution of mental health problems, chronic medical conditions, handicaps and adverse health behaviours in Western Australian children aged 4 to 16 years;
- Describe children's use of health care, education, juvenile justice and social services;
- Develop estimates of risk and markers identifying children at increased risk for various health, educational and vocational outcomes; and
- Identify markers resulting in protection from and amelioration of poor mental health and adverse health behaviour.

As a collaborative effort between the Institute for Child Health Research and the National Youth Statistics Unit of the ABS, a suite of three publications featuring the results of the survey will be produced. The first - *Western Australian Child Health Survey: Developing Health and Well-being in the Nineties* (ABS Catalogue No. 4303.5) was released in April 1995.

Some of the key findings are:

Physical health

- The majority (81 per cent) of Western Australian children were described as being in excellent or very good general health. A further 4 per cent (13,000) were considered to be in fair or poor health.
- Asthma was the leading chronic health problem, affecting one child in five (59,500), followed by migraine and severe headache, which affected 8 per cent or 22,900 children.

- Almost 8 per cent of children in school were limited in the type or amount of school work they could perform because of physical, emotional or learning problems.
- Fifty-nine per cent of children had visited a general practitioner (GP) in the past six months. GP visits were more common among Perth metropolitan children (61 per cent) compared with country children (53 per cent).
- Fourteen per cent (41,400) of children took prescribed medication with almost two in three (64 per cent) doing so to treat asthma.

Mental health

Nearly 18 per cent of all children (53,500) had a mental health problem, with boys (20 per cent) having a higher estimated prevalence than girls (15 per cent).

- Over two-thirds of 12 to 16 year-olds agreed they were happy with things in their life now (67 per cent), that they felt confident things would improve in their life (71 per cent) and that their life had meaning (68 per cent).
- Sixteen per cent (17,900) of adolescents reported having had suicidal thoughts. The proportion of older adolescents who had had such thoughts (24 per cent) was twice that for younger adolescents.

Adolescent health risk behaviours

- Most adolescents had consumed fruit (75 per cent) or cooked vegetables (70 per cent) the previous day while 45 per cent had eaten a green salad. Only one in five adolescents reported low consumption of fruit, cooked vegetables and green salad.
- Most adolescents (52 per cent) perceived their weight as about right. The majority of male adolescents perceived their weight as about right while girls most commonly considered they were overweight, particularly 15 and 16 year-olds.
- Just over 6 per cent of 12 to 14 year-olds said they had been drunk in the previous six months. The incidence of this behaviour increased to 35 per cent among 15 to 16 year-olds.
- Eighteen per cent of 12 to 16 year-olds had tried marijuana.
- One in five (8,400) 15 and 16 year-olds had had sexual intercourse. The main contraceptives they used were condoms (54 per cent) and the pill (33 per cent).
- Seven in ten of all adolescents had been taught about AIDS/HIV infection at school compared with 46 per cent who had discussed it with their parents.

The remaining two publications will concentrate on family and community health, and education and health, respectively.

prevent illness, is one such activity. Under the National AIDS program, expenditure on AIDS research in 1992-93 amounted to \$23.9 million while \$25.0 million was spent on blood bank screening, education and prevention, treatment and support services, the National Media Campaign and other information and reference activities.

National Better Health Program

The National Better Health Program funds projects in conjunction with the States to encourage reductions in the incidence of hypertension, accident, injury, poor nutrition, skin cancer and preventable health problems in the elderly. Nationally the Program funded 58 community based projects for a total of \$2.4 million in 1992-93.

Health services for Aboriginal People

The Government is committed to raising Aboriginal health standards. Strategies emphasise improvement of environmental conditions, domiciliary hygiene and preventative education programs coupled with the promotion of Aboriginal participation and decision making in health care delivery. The Multifunctional Aboriginal Children's Service assists child care centres to meet the individual needs of communities and to provide culturally appropriate services. AIDS education is also focussing on the needs of Aboriginal and Torres Strait Island people with recent activities including television commercials and radio serials in Central Australia, a range of workshops and the development of various community support systems for Aboriginal Health Workers.

National Drug Programs

The National Campaign Against Drug Abuse (NCADA) activities include drug abuse treatment, rehabilitation and prevention programs, the 'Drug Offensive' public information campaign and the development of a national drug abuse data system together with research and evaluation. In 1992-93, the Commonwealth Government contributed \$34.3 million nationally to NCADA which consisted of \$15.4 million for national campaigns and \$19.2 million in grants to the States (\$1.8 million to Western Australia).

The Health Department of Western Australia

The Health Department of Western Australia coordinates and manages health care functions and services throughout the State. The Department administers a wide range of legislation incorporating matters of individual and community health protection, treatment and regulation.

Disease Prevention and Health Promotion Program

The Department's Disease Prevention and Health Promotion Program endeavours to: minimise the incidence of preventable disease, injury, disability and premature death through two sub-programs: Health Protection and Health Promotion.

Health Protection

The Program aims to minimise the exposure of the public to physical, chemical and biological agents of disease in the community. It emphasises quality control of food, air and water and the control of other external environmental influences such as chemical exposure and misuse. During 1992-93, strengthened

strategies for surveillance and control of food products and bacteria resulted in a reduction of contaminants in food products. Improvements to hazardous waste management included the development of Australia's first intractable waste disposal facility at Mount Walton with a consignment of low-level radio-active waste being buried in November 1992.

Health Promotion

The Program seeks to encourage people to adopt attitudes and behaviours which will reduce the incidence of major preventable diseases and injuries. Targeted areas include nutrition, education, infectious disease control, AIDS information, alcohol, drug and smoking control, skin cancer prevention, hypertension control and Aboriginal health.

Statewide health promotion campaigns in smoking, nutrition, immunisation alcohol and drugs were carried out during 1992-93, targeting the needs of high-risk groups, Aboriginal people, non-English speaking people and youth.

Health Restoration Program

The program aims to restore people who are ill or injured to their optimum health level, to provide obstetric care, through sub-programs for:

- the early detection and control of disease;
- equitable access to community based health care for the geographically, socially or culturally disadvantaged (Ambulatory Health Care sub-program); and
- a comprehensive range of hospital services (Secondary and Tertiary Care sub-programs).

Activities involve the provision of services to hospitalised patients (in-patients) and to ambulatory and other patients (out-patients). Services are provided in teaching hospitals, non-teaching hospitals and psychiatric hospitals.

Rehabilitation of Disabled Persons and Restorative Care Program

This program exists to assist people disabled by disease or injury to gain or regain independence through restoration of lost function, or development of alternative skills that enable them to cope better with their loss of function.

Continuing Care Program

This program — through the Community Care and Residential Care sub-programs — provides support and care for people with incurable chronic illness or disability (including psychiatric) to help them live in their homes for as long as possible. It provides clinical support, including hospice, and environmental support such as cleaning, meals and maintenance.

The Health Department is also responsible for ensuring that appropriate nursing home and hostel places are available for those who need them, and that all people using these services receive an adequate and affordable standard of residential care. Improvements in lifestyle, environment and health care have

increased average life expectancy and, therefore, the number of seniors, whose overall health status is improving.

Other Health Services

Independent organisations provide a range of important health services for Western Australians. Many of these receive funds in the form of Commonwealth or State grants, but also rely heavily on support from individuals and private organisations. Some of the major independent organisations are detailed below.

Western Australian Alcohol & Drug Authority

The Authority provides coordinated, accessible, comprehensive and effective prevention and treatment programs for people who are experiencing alcohol and other drug problems. The Authority is structured into four programs; Clinical Services, Regional and Community Services; Education and Research and Corporate Services.

The Authority seeks to encourage community responses to alcohol and other drug problems. Support and financial assistance is available for non-government organisations needing assistance to deliver their own programs. Education, information and advice on alcohol and drugs is available for health and welfare workers.

The Alcohol and Drug Information Service run by the Clinical Services program received 12,291 telephone calls in 1992-93, the highest ever yearly total. The Regional and Community Services program saw a 28 per cent increase in the number of locations where sessional services were offered during 1992-93. The Education and Research program held approximately 300 events during 1992-93 which were offered to almost 7,500 participants.

The Perth Aboriginal Medical Service

The Perth Aboriginal Medical Service (PAMS) provides a health and medical service to the Aboriginal community of Perth. Funding is received from the Aboriginal and Torres Strait Islander Commission, Aboriginal Hostels Ltd, Department of Health, Housing and Community Services, Health Department of Western Australia and the National Australian AIDS Council.

Family Planning Association of Western Australia (Inc)

The Family Planning Association of Western Australia (FPAWA) is a community based non-profit organisation financed by grants from both State and Commonwealth Government and with self-generated funds. The Association strives to achieve excellence in sexual health care by providing services that affirm that all people are sexual throughout life and have a right to information and to personal choice, and that acceptance of sexuality is integral to health.

The Association runs clinics in Northbridge, Fremantle and Mirrabooka engaged in gynaecology, pregnancy counselling, sexually transmitted infection, cervical screening and sexual dysfunction. Confidential counselling and information services in all areas of sexuality are available at all centres. The library in Northbridge has the most comprehensive collection of literature

about human sexuality in the State and is open to members of the community.

During 1992-93 of the 18,628 clients who visited an FPAWA clinic, over 4,000 used the library and 900 people received counselling. Contraceptives were supplied to 48 per cent of clients with three-quarters of these persons receiving oral contraception (combined pill). During 1992-93 the Association developed a training curriculum about sexuality for Aboriginal groups called the Moonjuality Programme: 2,356 persons attended sessions, group talks or workshops, and a considerable proportion of these being persons from rural and remote areas of the state.

TABLE 5.8 - FAMILY PLANNING ASSOCIATION OF WESTERN AUSTRALIA (INC) 1992-93

Funding-	(\$)
Commonwealth Government	1,457,061
State Government	65,400
Project grants	345,935
Self generated funds	339,875
Total	2,208,271
Services -	(No.)
Clinical consultations	18,628
Telephone Information consultations	14,962
Participants in Community Education programs	1,534
Participants in Professional Education programs	714
Library attendance	4,000

Source: Family Planning Association of Western Australia, Annual Report, 1993

The Australian Red Cross, Western Australia

As part of its broad community service activities, the Society operates the Blood Transfusion Service in Western Australia. Blood collected by the blood transfusion service is processed by the Commonwealth Serum Laboratories and blood products are supplied to hospitals and pathologists for use in treatment and analysis.

Silver Chain Nursing Association

The Association provides domiciliary services, bush nursing and residential services throughout the State. The major sources of funding are the Health Department of Western Australia and the Home and Community Care program. This Commonwealth/State cost sharing agreement aims to provide an integrated range of services for frail aged and younger persons with disabilities. The number of client visits for domiciliary services in 1993 increased 47 per cent from the previous year.

References

ABS Publications

Western Australian Child Health Survey: Developing Health and Well-being into the Nineties (Catalogue No. 4303.5)

Other Publications

Annual Report, Department of Health, Housing and Community Services.

Annual Report, Family Planning Association of Western Australia.

Annual Report, Health Department of Western Australia.

Annual Report 1992-93, Health Insurance Commission.

Annual Report, Perth Aboriginal Medical Service.

Annual Report 1992-93, Australian Red Cross, Western Australia.

Annual Report, Silver Chain Nursing Association.

Annual Report 1993, Western Australia Alcohol and Drug Authority.

Annual Report 1990-91, Department of Social Security.

Annual Report 1992-93, Repatriation Commission and the Department of Veterans' Affairs.

Annual Report 1993, Department for Community Development.

*LAW, ORDER AND
EMERGENCY
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Chapter 6

LAW, ORDER AND EMERGENCY SERVICES

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Chapter 6

LAW, ORDER AND EMERGENCY SERVICES

Law and Order

In Western Australia the State Government has responsibility for enacting legislation, providing a police force, judiciary and corrective service.

The Law Courts

Courts

The court system continues to experience rising demands and pressures mainly resulting from the increase in complexity and duration of civil and criminal trials.

Courts administered by the Courts Development and Management Division of the Ministry of Justice include the Supreme, District, Magistrates' (Courts of Petty Sessions, Local Courts, Coroners), Children's and Family as well as the Western Australian Sheriff's Office.

Supreme Court of Western Australia

The Supreme Court of Western Australia is constituted under the *Supreme Court Act 1935* and exercises an original jurisdiction in both civil and criminal cases. It has exclusive jurisdiction in regard to certain cases, including serious indictable offences such as murder and treason. The Court is also vested with a wide range of appellate jurisdictions.

In August 1993, the Court conducted a Special Civil Sittings including dedicating its resources to reducing civil case delay. By December 1993 all matters entered for trial up to July 1993 had been disposed of.

As at 30 June 1995, there were 20 civil matters awaiting trial with listing intervals up to six months. Criminal trials are being contained with delays of seven months between first appearance at the Court and trial date. Full Court Appeals stand at 101 with a listing delay of 12 months. The Court of Criminal Appeal has a listing delay of three months.

The Supreme Court has embarked on a civil case flow management system supported by a computerised database of all

files past 1990, designed to enable the Court to take a more pro-active role in the conduct of matters and reduce delay.

Three "Electronic Courts" have been established to enable lengthy complicated trials and appeals to be conducted with the minimum use of paper, based on electronic format transcript and computer imaging of documents and exhibits.

District Court of Western Australia

The District Court of Western Australia, constituted under the *District Court Act 1969*, is a court between the Supreme Court and the Magistrates' Courts.

The number of criminal trials heard in the District Court increased by 45 per cent in 1993-94, with the number heard in the civil jurisdiction experiencing a 22 per cent increase.

Within both jurisdictions large backlogs still remain, the number of matters pending being 285 civil and 583 criminal trials. As a consequence of some jurisdictional changes for the Court, the average length and complexity of trials is also increasing, as well as is the number of matters. A comprehensive package is being planned for 1994-95 to reduce the delays experienced in the criminal jurisdiction.

Magistrates' Courts

Courts of Petty Sessions

Courts of Petty Sessions are established under the *Justices Act 1902*. These Courts are held throughout the State and deal with minor criminal cases, as well as committal proceedings in cases of more serious offences. The number of matters dealt with has decreased over recent years due to the expansion of the Infringement Notice Registration and Enforcement Procedure system (INREP). The number of matters registered with INREP has continued to increase to the extent that in 1993-94 the number of matters registered totalled 59,495. Forty prosecuting agencies currently pursue matters through this system.

Local Courts

Local Courts are established under the *Local Courts Act* and are held throughout the State to determine minor civil issues. Jurisdiction is limited in most cases to claims not exceeding \$25,000. The Small Disputes Division of the Court enables matters of small debts to be determined for claims up to \$3,000 and handles disputes between landlord and tenants under the provisions of the *Residential Tenancies Act 1987*. The number of Residential Tenancies applications lodged in the Local Court has continued to increase, with 10,227 applications being lodged in 1993-94.

Coroner's Courts

Coroner's Courts are responsible for inquiring into the circumstances of a person's death, where that person has suffered a violent or unexpected death, or where the nature of their death is uncertain. Coroner's Courts also inquire as to the cause and origin of fires.

Children's Courts

Children's Courts in Western Australia are constituted under the *Children's Court of Western Australia Act 1988* as a distinct jurisdiction, headed by the President who is a District Court Judge. The Court has exclusive jurisdiction to deal with all offences alleged to have been committed by children, as well as to hear applications to have children declared in need of care and protection.

The number of charges heard by the Court continues to fall. For 1994-95 the number of criminal charges lodged in the State fell 21.9 per cent from the previous year.

The *Young Offenders Act* was proclaimed in March 1995. The Act has made major changes to the way the Court deals with young offenders, including the increased involvement of responsible adults, the introduction of juvenile supervised release (parole), a new set of sentencing options and the replacement of Children's Panels with Juvenile Justice Teams.

Family Court of Western Australia

The Family Court of Western Australia hears petitions for divorce and has jurisdiction in the welfare and custody of children and disputes about maintenance and property of marriage. For a more detailed explanation of the Family Law Court, see page 117 of the 1993 *Western Australian Year Book*. See also Chapter 5 for further information on divorces.

The Jury System

The operation of the jury system is governed by the *Juries Act 1957*. Indictable offences are tried before a Judge and twelve jurors sitting in the criminal jurisdiction of either the Supreme Court or District Court, depending on the gravity of the offence. Juries for civil cases comprise six persons.

Subject to the Juries Act, a person who is enrolled on any of the rolls of electors entitled to vote at an election of members of the Legislative Assembly of the State Parliament, is liable to serve as a juror at trials in the jury district in which he or she is shown to live by any of those rolls of electors. Each year, a Juror's Book is prepared by the Chief Electoral Officer for each jury district within the State for persons who qualify as jurors. Certain persons are excluded from jury service and persons may be excused on the grounds of illness, undue hardship, circumstances of sufficient weight, importance or urgency, or recent jury service.

Law Reform Commission of Western Australia

The Law Reform Commission of Western Australia was established by the *Law Reform Commission Act 1972*. The commission's function is to examine proposals for the review of various laws which have been referred to it by the Attorney-General. It may also submit suggestions to the Attorney-General for review.

The commission usually issues a discussion paper dealing with the issue, and invites comments from interested persons. A report is then made to the Attorney-General. Recent reports issued by

the commission deal with United Kingdom statutes in force in Western Australia, joint tenancy and tenancy in common, consent to sterilisation of minors, and the enforcement of orders under the *Justices Act 1902*.

As at August 1995, the commission had issued a total of 86 reports, 80 of which recommended legislative changes. To date, 51 of these have been implemented by legislation passed by the Western Australian Parliament.

Legal Aid

Legal Aid Commission of Western Australia

People in Western Australia may receive legal advice, guidance and financial assistance towards their legal costs from Legal Aid Western Australia. Legal Aid is an independent statutory body and is funded principally by Commonwealth and State Governments. Legal Aid currently employs a staff of 189 of which 63 are legally qualified.

Legal Aid takes a solution orientated approach to resolving legal problems and concentrates on the provision of self-help assistance including legal advice and minor assistance, workshops, forums, kits and pamphlets. Litigation assistance is available to eligible applicants for legal aid. In 1993-94, 19,930 people received legal advice and 13,441 requests for financial assistance towards legal costs were received. Of these, 7,745 were granted and comprised: Family Law 1,964; Criminal Law 4,872; Civil Law 909.

Aboriginal Legal Service

The Aboriginal Legal Service of Western Australia is the largest community based Aboriginal organisation in the State. Among its aims is the provision of direct relief to all Aboriginal people suffering poverty, distress, or helplessness as a result of their involvement with the laws of the Commonwealth or States of Australia. Since opening its doors in 1973 with a staff of six, the service has grown to 100 people working out of 16 offices throughout the State. The Aboriginal Legal Service is funded by a grant from the Aboriginal and Torres Strait Islander Commission. The Legal service deals with around 40,000 matters each year. The service includes family law; criminal law; a Civil and Public Interest Unit and a Land and Heritage Unit.

State Ombudsman

The Parliamentary Commissioner for Administrative Investigations (or State Ombudsman, as he is better known) receives and investigates complaints about things that go wrong in the administration of State Government departments, local government authorities, and most statutory authorities (e.g. Transperth, Westrail), as well as about both the conduct and administrative actions of members of the Police Force.

The State Ombudsman cannot investigate complaints about non-government matters. It is outside the Ombudsman's powers to enquire into the actions of companies, associations, clubs and private persons. There are also some complaints about

Law, Order and Emergency Services

government matters that the Ombudsman cannot investigate. These include complaints about decisions made by Government Ministers. Complaints about decisions made by courts of law are outside the Ombudsman's jurisdiction.

In the financial year 1994-95, the Ombudsman received 3,265 allegations, of which 2,884 were finalised. This was the largest number of allegations both received and finalised in one year.

Corrective Services

The Corrective Services Division of the Ministry of Justice is responsible for the management, control and security of prisons; the custody and welfare of prisoners; the management and supervision of offenders in the community; and the management and control of Community Corrections Centres. The Division's mission statement is, "positively contributing to the criminal justice system and the protection of the community through the management of offenders".

In fulfilling its mission the Division's key strategic initiatives are to:

- consolidate existing offender management systems,
- match the cost efficiency of comparable prisons under private sector management, and
- provide effective and culturally appropriate alternatives to imprisonment so as to assist in reducing the rate of imprisonment towards the national average.

Prison Operations

The Prison Operations Directorate is responsible for maintaining security and good order in 13 prisons throughout the State. It is also responsible for looking after the welfare needs of prisoners as well as the constructive use of their time through work, education and recreation, and providing the opportunity to gain skills they can use to integrate into the community on their release.

The daily average muster of prisoners during 1994-95 was 2,119. This represents an increase over last year's figure of 2,026. The muster peaked at 2,229 during June 1995.

There were 86 escapes during the financial year compared with 62 during 1993-94, an increase of 39 per cent. One escape was rated maximum security, one rated medium security and the remainder were rated minimum security.

Police

The mission of the Western Australian Police Service is to "preserve the peace within the community of Western Australia". Every police officer of the service has a duty to preserve the peace, protect life and property, prevent offences against the law, detect and apprehend offenders and render help to those in need.

To carry out this mission, Western Australia is serviced by 50 police stations within eight metropolitan regions and by 120

police stations in eight country regions. At the 30 June 1995, there were 4,330 police officers and they were supported by 1,300 public service staff.

The Western Australian Police Service has adopted a Community Policing ethos in which the general public and police work in unison on programs dedicated to reducing crime and providing a safer environment for everyone. The programs include Neighbourhood Watch, Rural Watch, school based police officers, bicycle safety officers and road safety officers.

TABLE 6.1 – CRIMES VICTIMS BY OFFENCE CATEGORY WESTERN AUSTRALIA, AUSTRALIA: 1994
Reference: Catalogue No. 4510.0

Offence	Western Australia		Australia	
	Number	Rate (a)	Number	Rate (a)
Homicide—	110	6.46	850	4.76
Murder	39	2.29	288	1.61
Attempted murder	28	1.65	334	1.87
Manslaughter	11	0.65	32	0.18
Driving causing death	32	1.88	196	1.10
Sexual Assault	1,372	80.62	13,277	74.41
Kidnapping/abduction	41	2.41	548	3.07
Robbery—	1,239	72.80	14,151	79.31
Armed robbery	584	34.31	5,060	28.36
Unarmed robbery	634	37.25	8,923	50.01
Blackmail/extortion	21	1.23	168	0.94
Unlawful entry with intent	55,911	3,285.21	380,152	2,130.50
Motor vehicle theft	16,625	976.85	119,760	671.18

(a) Rate per 100,000 of population.

In their "Crime Statistics Report 1993-94 and 1994-95" the Police stated that total offences reported for 1994-95 were up 22,542 or 10.7 per cent compared to 1993-94.

The report stated that during 1994-95 there were 80 homicide offences, an increase of 25 or 45.5 per cent compared to last year. All offences were cleared.

Reported burglary (break and enter) offences increased (by 12.0 per cent) in 1994-95 with 11.6 per cent of offences being cleared. Community concepts, such as neighbourhood watch, and greater public awareness of security needs are playing a major part in Crime Prevention.

The report said the number of motor vehicles stolen increased 12.9 per cent to 20,895 in 1994-95. Some 3,316 offences (15.9 per cent) were cleared compared to 3,224 offences (17.4 per cent) cleared last year.

TABLE 6.2 – OFFENCES REPORTED: 1993-94, 1994-95

Offence	<i>Number of offences reported</i>		<i>Offences cleared 1994-95</i>	
	1993-94	1994-95	Number	Rate (per cent)
Homicide (a)	55	80	80	100.0
Indecent assault	1,794	1,815	1,735	95.6
Deprivation of liberty	235	244	183	75.0
Aggravated sexual penetration	607	469	452	96.4
Sexual penetration	324	619	586	94.7
Burglary (break and enter)	53,866	60,309	7,003	11.6
Robbery (b)	1,095	1,366	535	39.2
Serious assault	3,342	3,842	3,222	83.9
Assault on a public officer	756	961	946	98.4
Common assault	5,637	6,499	5,293	81.4
Stealing	67,487	72,938	14,998	20.6
Motor vehicle theft	18,510	20,895	3,316	15.9
Fraud	9,421	11,914	7,874	66.1
Damage	31,619	34,401	5,759	16.7
Arson	564	580	177	30.5
Drugs (c)	9,831	10,403	9,151	88.0
Other offences	4,764	5,114	2,105	41.2
Total	209,907	232,449	63,415	27.3

(a) Includes murder, attempted murder and manslaughter. (b) Includes stealing with violence and armed hold-ups. (c) Up until 1993-94 drug offences were only compiled upon the apprehension and charging of an offender.

Source: Western Australian Police Department

Emergency Services

Fire

Fire Brigades Board

The Fire Brigades Board is a Statutory Authority set up under the provisions of the *Fire Brigades Act 1942-1985*. Its mission is "to minimise the number and impact of fires and other emergencies on the people, property and environment of Western Australia". The mission statement identifies the following key roles of the fire service: fire prevention; fire suppression; emergency rescue; and hazardous materials combat.

Where only volunteer fire brigades are established the board is funded from Consolidated Revenue Funds. Permanently staffed fire districts are financed 75 per cent by the insurance companies, 12.5 per cent by Local Government Authorities and 12.5 per cent from Consolidated Revenue Funds.

Within the Metropolitan Fire District there are 17 permanently staffed fire stations (one of these supported by volunteer firefighters) and one wholly volunteer station. Permanent firefighters are also stationed at Albany, Armadale, Bunbury, Geraldton, Kalgoorlie, Northam and Rockingham. At each of these locations the permanent crews are supported by volunteer

brigades. Volunteer fire brigades are established in a further 77 country towns.

In total, at 30 June 1995, the board was authorised to employ staff in 1,002 positions. Of these positions 840 were operational posts and the remaining 162 related to either clerical, technical or general support functions. There were also 2,465 volunteer firefighters registered.

During 1994-95, a total of 18,292 incidents were responded to throughout the State. Of these 33.3 per cent were false alarms, 9.3 per cent were special service calls (rescues, hazardous goods accidents, humanitarian services etc) and 57.4 per cent were either grass/scrub/bush/rubbish, transport or property fires.

In terms of fire safety in 1994-95, the board conducted 1,958 building plan inspections, 2,056 high risk building inspections, 5,469 building construction inspections, 1,580 connections of direct brigade alarms to premises and 280 fire investigations.

Education into fire safety involved conducted tours through the Fire Safety Education Centre, involving 8,203 children and 8,890 adults.

The Brigade currently has 268 fire fighting appliances, 116 non-fire fighting appliances and 70 rescue trailers.

Bush Fires Board

Constituted under the *Bush Fires Act 1954-92*, the Board's charter is to administer the provisions of the Bush Fire Legislation and to maintain a high standard of rural fire safety through the provision of fire protection services policy and direction supportive to local government and their bush fire brigades.

The mission of the Bush Fires Board is "to protect life, property and the environment by providing a service for the prevention, control and suppression of fire, and to support other emergency services across Western Australia".

The Bush Fires Board is responsible for the overall administration of the Bush Fires Act and Regulations, with day to day administration and the maintenance of Bush Fire Brigades being the responsibility of Local Government Authorities.

Volunteer bush firefighters are organised statewide into 720 Bush Fire Brigades with a membership in the order of 20,000 persons.

St. John Ambulance Australia (Western Australia)

St. John Ambulance provides the State's ambulance service throughout Western Australian. It manages the Ambulance Benefit Fund, teaches first aid and supplies volunteer first aiders for attendance at various public events. It also administers Medic Alert, the medical identification system worn as a bracelet or pendant. St. John Ambulance is a non-profit organisation and

makes a charge for services. The State Government subsidises the annual shortfall — approximately 35 per cent of operating costs.

Royal Flying Doctor Service

The Royal Flying Doctor Service of Australia (RFDS) is a non-profit organisation financed by grants from the Commonwealth and State Governments and by private donations. The principal function of the Service is to provide aerial medical services for all persons in Western Australia irrespective of their location and economic situation. Its mission is "to bring peace of mind to rural Australians by providing the world's best aerial health service". There are six Flying Doctor bases in Western Australia, based in Derby, Port Hedland, Carnarvon, Meekatharra, Jandakot and Kalgoorlie, operating with a total of 17 aircraft. For the year ended 30 June 1995, the RFDS in Western Australia flew 3,722,301 kilometres, and was in contact with 47,930 patients, 4,512 of whom required transportation. In Western Australia, the RFDS has 128 staff, 28 of whom are pilots, 10 doctors (plus subcontracted doctors in Derby), 25 nurses and 11 radio staff.

The radio network of the Royal Flying Doctor Service is regularly used in the work of Schools of the Air conducted by the Ministry of Education, and also for the transmission and receipt of telegrams and radio telephone calls. In addition, it may be used in connection with flood relief, in searching for lost parties and during cyclones or other emergencies.

State Emergency Service

The Western Australian State Emergency Service (WASES) mission is "to assist the community to cope with natural or man made emergencies." It achieves this through establishing, training and equipping volunteer State Emergency Service units throughout Western Australia and through managing the hazards it has "lead combat authority" responsibility for. The WASES has in excess of 80 SES units and over 2,100 volunteer members.

On 1 July 1995, following nearly 10 years association with the Police Department, the WASES was separated from the Police and established as a department in its own right.

The WASES is the "lead combat authority" for flood, cyclone, storm and earthquake. It is also a "combat authority" for land search, road accident rescue (in specified areas), and cliff and cave rescue. In addition to these roles, the WASES acts in a support role to the Police and other emergency services to assist them to manage a range of emergencies.

February 1995 saw the WASES manage the impact and effects of tropical cyclone (TC) Bobby. TC Bobby crossed the Western Australian coast near Onslow, causing damage to the town and loss of life when two fishing vessels sank. As it moved south then south-west across the State, TC Bobby caused widespread and protracted flooding that closed roads, railways and isolated many communities. WASES, in conjunction with other agencies,

managed a multitude of response and re-supply activities across the State. At one stage the primary road and rail links with the Eastern States across the Nullabor were closed, effectively isolating the State and trapping many vehicles on the Eyre Highway. Two state plans, the Resupply of Isolated Communities Plan and the Resource Support Plan were activated for several weeks to deal with the emergency. Commonwealth Defence Force assistance through the provision of two Hercules C130 aircraft aided re-supply operations in the Goldfields.

The WASES maintains close operational and planning links with the Western Australian Police who are responsible for the overall coordination of emergency response activities. The Service's volunteers continue to provide the Police with assistance in non-crime orientated tasks such as land search. The WASES also assists the Police with the management of events such as the annual Australia Day "Skyshow".

References

ABS Publications

Year Book Australia (1301.0)

Summary of Criminal Court Proceedings, Western Australia (4504.5)

National Crime Statistics, January to December 1994 (4510.0)

Other Publications

Annual Report 1992-93. Western Australian Department of Corrective Services.

EDUCATION

Chapter 7

EDUCATION

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Chapter 7

EDUCATION

Material for this Chapter was prepared in consultation with the relevant State and Commonwealth Education Authorities.

In Western Australia, education at pre-primary, primary and secondary levels is provided at government schools administered and staffed by the Department of Education and at non-government schools, most of which are conducted by the principal religious bodies. Technical and further education is offered by the Department of Training, and by three independent regional colleges. The latter also provide higher education facilities. Additional higher education is available through four State universities and one private university.

Pre-Primary Education

Before starting primary school, a child may undergo pre-primary education at either a government or non-government school. A child may also attend a Government staffed community pre-school or an independent pre-school. Attendance is optional at all centres. Children start pre-primary during the year in which

TABLE 7.1 - PRE-PRIMARY EDUCATION: JULY

	1992	1993	1994
NUMBER OF CENTRES			
Government—			
Pre-primary	533	558	554
Community pre-school	116	113	110
Non-government—			
Pre-primary	155	174	190
Independent pre-school	23	20	19
Total	827	865	873
NUMBER OF TEACHING STAFF (a)			
Government	549	743	756
NUMBER OF CHILDREN			
Government—			
Pre-primary	25,966	24,087	23,986
Community pre-school	5,921	5,712	5,539
Non-government—			
Pre-primary	5,056	5,585	6,028
Independent pre-school	1,169	1,018	960
Total	38,112	36,402	36,513

(a) Numbers shown are for full-time equivalents rounded to the nearest whole number. Source: Education Department of Western Australia

they turn five years of age. They may start during their fourth year where vacancies exist and attend two half day sessions per week.

Every person running a pre-school centre must hold a permit issued by the Minister for Education and all authorised pre-school centres are subject to inspection by an officer of the Department of Education.

Primary and Secondary Education

Children normally start primary school at the beginning of the year in which they attain the age of six years. Except in special circumstances, attendance is then compulsory to the end of the year in which the child attains the age of fifteen years. Instruction in primary school is provided over seven years. A child who makes normal progress completes the course at the age of twelve and then enters secondary school.

Secondary education is provided over a period of five years — from Year 8 to Year 12. Generally, students may leave at the end of Year 10 or continue through to Year 12 to attain a Certificate of Secondary Education or the new Western Australia Certificate of Education.

Western Australia currently has two Senior Colleges and two Senior Campuses run by the Department which give 'second chance' secondary education to those people who left the school system before achieving their goals.

TABLE 7.2 – GOVERNMENT AND NON-GOVERNMENT SCHOOLS, FULL-TIME STUDENTS BY AGE (a)

1994

Reference : Catalogue No. 4221.0

Age at 1 July (years)	Government schools (b)	Non- government schools (c)	Total
5 and under	9,459	2,523	11,982
6	20,339	5,642	25,981
7	20,765	5,700	26,465
8	20,939	5,661	26,600
9	20,799	5,622	26,421
10	20,514	5,789	26,303
11	20,184	5,937	26,121
12	19,088	7,025	26,113
13	17,331	7,750	25,081
14	16,981	7,384	24,365
15	15,539	6,930	22,469
16	12,169	6,274	18,443
17	6,378	3,334	9,712
18 and over	2,620	736	3,356
Total	223,105	76,307	299,412

(a) Excludes pre-primary and technical school students. (b) Includes students attending education support schools, centres and units. (c) Includes students attending special schools.

TABLE 7.3 - GOVERNMENT SCHOOLS: JULY

	1992	1993	1994
NUMBER OF SCHOOLS			
Primary schools	548	553	550
Education support schools/centres	58	59	63
Secondary schools—			
District high schools	59	60	60
High schools	6	5	3
Senior high schools	87	87	89
Senior colleges	2	2	2
Distance Education Centre	1	1	
Total	761	767	768
NUMBER OF TEACHING STAFF (a)			
Engaged in teaching duties—			
Primary	7,560	7,651	7,541
Secondary	6,167	6,286	6,206
Education support (b)	398	421	436
Total	14,125	14,358	14,183
NUMBER OF FULL-TIME STUDENTS (c)			
Level of education—			
Primary	142,897	143,871	144,885
Secondary—			
Years 8, 9 and 10	51,512	51,622	52,089
Years 11 and 12	25,053	25,574	24,608
Senior colleges	1,572	1,384	1,523
Total	221,034	222,451	223,105
Males	113,880	114,590	114,794
Females	107,154	107,861	108,311

(a) Numbers shown are for full-time equivalents rounded to the nearest whole number. (b) Excludes teachers working in education support units attached to primary and secondary schools. (c) Includes ungraded and education support students (students with disabilities) who attend primary or secondary schools. Source: Education Department of Western Australia.

The Department of Education has a number of programs giving help to students with special needs. They include Aboriginal and Torres Strait Islanders, students from a non-English speaking background, students with disabilities, or from socio-economically disadvantaged areas, students who are geographically isolated and gifted and talented students. Special programs are also available which address issues of gender equity in education.

In Western Australia distance education operates as a constituent of the general school system. The Distance Education Centre (DEC) of the Education Department provides schooling to a wide variety of students who are unable to attend a conventional school for reasons of isolation. These include students living in rural and remote areas, and isolated Aboriginal communities. It also caters for students who are unable to attend conventional schools for various medical and social reasons, as well as for prisoners in jails. The DEC enrolls students from schools that are unable to offer the

maximum choice of subjects because of the limitations of small staff size and timetables. In some cases the DEC enrolls students travelling interstate and overseas with their parents. Adults who are isolated and seeking a second chance are able to access the DEC.

A feature of the service offered by the DEC is the field support given to students by visiting teaching staff. Another feature is the increasing use of interactive television and telematics to support student's learning.

Schools of the Air are conducted through the radio network of the Royal Flying Doctor Service from bases at Carnarvon, Derby, Kalgoorlie, Meekatharra and Port Hedland.

Primary and Secondary School Curriculum

The curricula of both the primary and secondary schools are organised into the learning areas of: English; Mathematics; Science; Health and Physical Education; studies of Society and Environment; Technology and Enterprise; the Arts and Languages other than English.

TABLE 7.4 - NON-GOVERNMENT SCHOOLS: JULY
Reference : Catalogue No. 4221.0

	1992	1993	1994
NUMBER OF SCHOOLS			
Primary	146	147	146
Secondary	39	39	40
Primary/secondary combined	63	61	63
Special	2	2	2
Total	250	249	251
NUMBER OF TEACHING STAFF (a)			
Primary	2,058	2,153	2,247
Secondary	2,595	2,691	2,801
Special (b)	—	—	—
Total	4,653	4,844	5,048
NUMBER OF FULL-TIME STUDENTS			
Level of education—			
Primary (c)	38,362	39,653	40,509
Secondary—			
Years 8, 9 and 10 (c)	21,897	22,021	23,053
Years 11 and 12	12,048	12,448	12,424
Ungraded	245	166	321
Total	72,552	74,288	76,307
Males	36,361	37,314	38,323
Females	36,191	36,974	37,984

(a) Numbers shown are for full-time equivalents rounded to the nearest whole number. (b) Students and the staff from special schools have not been identified separately. (c) Includes students in ungraded classes.

Primary School Curriculum

Although the curriculum in Years 1 to 3 of primary school focuses on the developing students' language abilities and functional literacy and numeracy, all primary students study an integrated curriculum which covers the above learning areas.

Secondary School Curriculum

Lower Secondary school students (Years 8 to 10) are given an increased opportunity to study programs of their choice according to their interests, ability and emerging vocational needs whilst ensuring it is a balanced education. Generally, students are expected to study 160 hours of English and Mathematics each year and to study at least one semester-length course in each learning area (except Languages other than English).

Students in Years 11 and 12 study a combination of year-long and semester-long courses within academic and vocational programmes, which prepare them for transition to further education, training or employment.

The Secondary Education Authority

The Secondary Education Authority (SEA) is a statutory body which accredits upper secondary courses, moderates student assessment, issues certificates and administers the Tertiary Entrance Examination. The SEA is responsible to the Minister for Education.

Student Achievement

The Certificate of Secondary Education is awarded to students who have completed at least one SEA approved Year 11 or Year 12 course. Students in these years study courses selected from 383 accredited and vocational courses and a range of registered and vocational courses approved by the SEA. Schools assess these students and the grades given in accredited courses are moderated by the SEA to ensure comparability across all areas of the State. Grades in registered courses are not moderated.

Students have an external examination in some Year 12 accredited courses which can contribute to a student's Tertiary Entrance Score (called TES subjects). A numerical score (Scaled Mark) for TES subjects is reported on an attachment to the Certificate of Secondary Education. This numerical score is a 50:50 combination of the standardised moderated school assessment and the standardised examination mark. The combined mark is scaled using the Australian Scaling Test (AST).

Entrance to Universities is based on the TES, which is a weighted average of scores in a student's best four or five TES subjects. Ten per cent of the student's AST score is also included. The maximum TES is 510. The student must also have satisfied the requirements for secondary graduation, satisfactory performance and English language competence.

Entrance to TAFE is based on a profile of information covering courses completed, grades, and work experience.

Post Secondary Education

Higher Education Council

The Western Australian Higher Education Council provides a forum for the discussion of matters relating to higher education in Western Australia and for advising the State Minister for Education. The Education Policy and Co-ordination Bureau (formerly the Western Australian Office of Higher Education) supports the operation of the Council through the provision of administrative, secretarial and research services. As a government department, the Education Policy and Co-ordination Bureau contributes to the development of the educational system in Western Australia by providing objective and independent advice to the Minister on strategic issues and policy settings and by co-ordinating portfolio-wide initiatives directed toward system improvements.

Technical and Further Education (TAFE)

Vocational education and training (VET) is coordinated by the Western Australian Department of Training. In 1994 there were 101,052 student enrolments in publicly funded VET programs in this State.

The Department's mission is to contribute to the development of competitive industry in Western Australia and the economic and social well-being of its people, by supporting industry and providing Western Australians with relevant vocational education and training and enhanced employment opportunities.

A network of TAFE and community colleges, as multi-campus institutions aligned to broad geographic and economic regions, offers full-time and part-time accredited training. Full-time TAFE courses provide para-professional training, pre-apprenticeship training, entry-level training courses and special custom-made courses for industry and business. Colleges also administer TAFE centres, which operate from local high schools and community locations, providing primarily part-time and evening courses in a range of community and adult education areas.

The colleges encourage a higher level of community and client involvement in their governance, allowing them to develop a good relationship with and understanding of the local industry and the community they serve - thereby allowing them to respond quickly and effectively to changing client needs.

The college network includes :

Metropolitan TAFE Colleges

- Advanced Manufacturing Technologies Centre
- Central Metropolitan College of TAFE
- Midland College of TAFE
- North Metropolitan College of TAFE

- South Metropolitan College of TAFE
- South East Metropolitan College of TAFE

Regional TAFE Colleges

- C Y O'Connor College of TAFE (Northam region)
- Geraldton Regional College of TAFE
- Great Southern Regional College of TAFE (Albany region)
- Kimberley College of TAFE
- South West Regional College of TAFE (Bunbury region)

Community Colleges

- Hedland College
- Karratha College
- Kalgoorlie College
- Pundulmurra College in South Hedland

The Curriculum and Customised Training Network, as a commercial operation, is responsible for the recruitment of overseas students and coordination of international training projects. It also oversees the development of curriculum and coordinates technology-based program delivery for students in remote regions of the State.

The Department, through its Office of Employment Initiatives, administers approximately sixty community based employment assistance projects, which are aimed at identifying employment opportunities for the unemployed.

In addition, the Western Australian Department of Training operates the Western Australian Training Information Centre which is located at the rear of Albert Facey House in Perth.

Tertiary Institutions Western Australia has four government universities. A private university, the University of Notre Dame Australia, commenced receiving students during the early part of 1992.

Western Australian university study programs offer graduate and postgraduate diplomas, bachelor, honours, masters and doctoral degrees. Bachelor degrees vary between three and six years duration, some requiring successful completion of the first year of another course, others the completion of that course. Honours degrees generally entail an additional year of study.

Study programs are designed to provide students with the degree of specialisation necessary for an increasingly demanding technological world. All courses are accredited and listed in the Register of Australian Tertiary Education. All Universities seek to

foster strong links with the community by providing research and consultancy services, implementing training programs for industry and offering a broad variety of community courses.

The attraction of full fee-paying overseas students has become increasingly important to Universities. Most of these students come from Malaysia, Singapore, Hong Kong, Indonesia, and the People's Republic of China, although a large number of other countries are represented.

Edith Cowan University

The University is a multi-campus institution with over 18,000 students and 250 programs of study. It is one of Australia's largest degree awarding institutions. Academic courses are offered at the Churchlands, Mount Lawley, Joondalup and Bunbury Campuses. The University's Claremont Campus is used for a variety of non-teaching purposes, including conferences. The Western Australian Academy of Performing Arts is an academy of the University, and is located on the Mount Lawley Campus.

The University is vocationally orientated, providing multi-level courses to meet specific community needs for 30 per cent of the State's university students. The courses are flexible in approach to entry requirements, teaching methods, modes of study and design. Women represent 63 per cent of the total student body.

University of Western Australia

The University of Western Australia was established in 1911 and teaching began in 1913. Since then it has been dedicated to attaining excellence in research, teaching, learning and governance.

Courses are offered through eight faculties; namely Agriculture, Arts, Economics and Commerce, Education, Engineering and Mathematical Sciences, Law, Medicine and Dentistry, and Science. There are more than 50 teaching departments as well as many research and teaching centres, including prestigious government-selected and supported cooperative research centres.

The highest percentage of Western Australia's top school leavers (around 70 per cent) choose to study at this University annually. Apart from undergraduate students, many others undertake postgraduate study and research. Out of an enrolment of about 13,000, ten per cent are international students, mainly from South-East Asia. Besides its international recruitment program, the University's International Centre has developed effective student and staff exchange relationships with overseas institutions.

The University campus, with its five residential colleges and hall of residence, spreads over some 65 hectares by the Swan River, about six kilometres from central Perth. The University Library, which boasts 14 subject libraries, is linked by computer to other university libraries and databases throughout the world, including AARNet and Internet. Also on campus are an art gallery, a museum of geology and a museum of anthropology, five theatres,

a music auditorium and Winthrop Hall. On-campus venues are used by arts practitioners from within and outside the University, particularly during the annual Festival of Perth.

Murdoch University

Established in 1973, Murdoch University is situated 13 kilometres from Perth, and comprises over 220 hectares. Degree programs in

TABLE 7.5 - THE UNIVERSITIES: NUMBER OF STUDENTS

<i>Field of study</i>	1992	1993	1994
Agriculture	807	801	854
Architecture	836	869	902
Arts	12,709	12,850	13,701
Business	12,924	12,930	12,863
Education	7,772	7,500	7,068
Engineering	3,364	3,632	3,610
Health	6,872	7,039	7,138
Law	1,526	1,696	1,835
Science	7,563	7,769	8,071
Veterinary Science	349	362	348
Non-Award	11	12	11
Total	54,733	55,460	56,401

Arts, Social Sciences, Commerce and Natural Sciences, and professional degrees in Education, Engineering, Law and Veterinary Studies are available. The university has a strong research record, with key centres in Asian studies, metallurgy and agricultural biotechnology.

Murdoch is one of the fastest growing universities in the State and has Federal and State Government support to launch two regional campuses at Rockingham and Mandurah to accommodate demand in these rapidly growing areas. The Master Plan for the Rockingham campus has been launched, with construction expected to be completed by 1997.

The gardens are a feature of the University and 60,000 native trees, plants and wildflowers have been planted. There is also a Chinese garden, the materials for which were donated by Chinese communities in Asia. Crafts people from Taiwan visited Perth to assemble the garden.

On campus, accommodation is provided for 430 students. The Student Village provides self-service accommodation with each student having a single study/bedroom. Groups of students share common kitchen, dining and lounge areas.

Curtin University of Technology

Established by the Federal Government as a university in 1987, Curtin became the first university of technology in Australia, developing from strong foundations during two decades as the former Western Australian Institute of Technology (WAIT). Curtin University offers a comprehensive range of undergraduate and postgraduate courses to more than 20,000 students.

Curtin University is concerned with technology and the range of ideas, operations and materials by which people apply knowledge to real situations. The University has developed an international reputation for its highly relevant programs, its global outlook and its well developed student support structure. An independent national survey of graduates by the Graduate Careers Council of Australia (1994) confirmed that the rate of employment for Curtin first degree graduates was the highest in Western Australia and 10 per cent higher than the national average. Curtin qualifications are recognised worldwide.

The majority of courses are offered through the University's main campus in Bentley. Podiatry, occupational therapy and physiotherapy are taught at the campus adjacent to the Royal Perth (Rehabilitation) Hospital Annex in Shenton Park. A new Joondalup campus was established in 1993 through the University's link with the Australian Institute for University Studies (AIUS). A number of Curtin accredited business and health sciences courses are available at this campus. The Graduate School of Business is located in the heart of the Perth central business district and offers a range of graduate commerce courses, further strengthening the Curtin Business School's links with industry.

Specialist campuses in country areas include the Muresk Institute of Agriculture in the Avon Valley near Northam and the Western Australian School of Mines at Kalgoorlie.

Curtin's four teaching divisions are :

- the Division of Humanities - this is the largest division within the university, reflecting the importance on the study of human culture.
- the Curtin Business School (CBS) - CBS is committed to the provision of sound, stimulating business education with a curriculum geared to the future needs of business.
- the Division of Engineering and Science - this division has a strong teaching and research profile in a range of science and engineering areas and is a partner in five Cooperative Research Centres in hydrometallurgy, maritime engineering, petroleum geochemistry, mineral exploration technologies and telecommunications.
- the Division of Health Sciences - this is considered one of the most comprehensive tertiary centres of health study and training in Australia, operating a number of clinics which service the University as well as the wider community.

Research centres and units operating within the divisions highlight the University's extensive research profile.

The Centre for Aboriginal Studies is committed to higher education that furthers the advancement of Aboriginal and Torres Strait Islander values, relevant control and the achievement of equity through culturally appropriate programs. The Centre offers a number of courses in areas as diverse as management and health studies. Although providing education is the first priority of the Centre, it also has a deep commitment to obtaining equality for Aboriginal people.

Work is currently progressing on the John Curtin Centre, a major development on the Curtin University's Bentley campus. The Centre will honour John Curtin, Australia's prime minister from 1941 to 1945, after whom the University is named. The John Curtin Centre will be a national and international centre of learning created to help Australia build closer links with the countries of the Asia-Pacific and Indian Ocean regions. The Centre will include an international institute, a prime ministerial library and an art gallery.

Western Australian School of Mines

The Western Australian School of Mines is a branch of Curtin University, comprising the Departments of Mineral Exploration and Mining Geology; Minerals Engineering and Extractive Metallurgy; Mining Engineering and Mine Surveying. It also offers courses in science and mineral economics. Students may study for awards from the Associate Degree, the Bachelor of Science or Engineering, course work or research Masters degrees, to the Doctorate by research. All courses feature a close relationship with the Australian and international mining industry.

The School of Mines is in the process of joining with Kalgoorlie College to become a University College of Curtin. The University College will offer a wide range of programs and continue to introduce further degree programs in response to community needs.

Muresk Institute of Agriculture

Muresk Institute of Agriculture is located near Northam, just an hour's drive from Perth. The campus has impressive teaching and research facilities, including a 1,800 hectare farm, laboratories, glass and tunnel houses, a library and information service, video conferencing centre and the Clyde Smith Rural Management Centre which houses a wide range of microcomputer hardware and software. Muresk conducts research across the spectrum of agriculture from agricultural technology and management to marketing and agricultural business structures. Students may study for awards from Associate Degree in Agriculture, a Bachelor of Agriculture or Horticulture, Graduate Diplomas in Agribusiness or Landcare, Master by research to the Doctorate by research. The Centre for Agribusiness Marketing and the Muresk TAFE Extension Service are based at Muresk. They offer a range of training services and short courses to government and industry groups.

*The University of
Notre Dame Australia*

The University of Notre Dame Australia was established as Australia's first Catholic university by Act of Parliament in 1989 and enrolled its first students in 1992. Its main campus is in Fremantle and it has a second campus in Broome. In 1996 it will enrol more than 1,000 students in undergraduate and postgraduate degree courses in its four Colleges : Arts and Science, Business, Education and Theology.

Notre Dame, the only private university in WA, is committed to the advancement of learning and knowledge within a context of Christian faith and values.

*The Tertiary
Institutions Service
Centre (Incorporated)*

The Tertiary Institutions Service Centre (Incorporated) processes applications for admission to undergraduate and Diploma in Education courses at the four government universities in Western Australia and carries out such other functions as agreed by those universities. Applicants seeking admission apply through a joint system operated by the Centre. Applicants list up to four preferences from all undergraduate courses and up to three preferences for the Diploma in Education courses. Offers are made by the universities on the basis of a ranked order for each course.

The Centre also conducts a mature age testing programme (Special Tertiary Admissions Test (STAT)) and is responsible for the West Australian Universities Foundation Program (WAUFP) for overseas students.

**Commonwealth
Government
Assistance for
Education**

The Commonwealth Government provides supplementary finance to the State and is responsible for the total funding of the four government universities. The Commonwealth also has special responsibility for Aboriginal people and for migrants, as well as the power to provide assistance for students.

**Financial Assistance
for Students**

*Assistance for Isolated
Children Scheme*

This scheme assists families whose homes are too remote for normal daily access to government schools. It provides allowances for eligible students living away from home to attend school, for students studying by correspondence or when a second home is maintained for student occupation. The scheme also covers children regarded as isolated owing to medical disability.

AUSTUDY

In 1987, AUSTUDY replaced the Tertiary Education Assistance Scheme, Adult Secondary Education Allowance Scheme, and the Secondary Allowances Scheme as the main scheme for community-wide student assistance. Subject to eligibility criteria, AUSTUDY provides support for full-time students 16 years of age and older studying secondary, technical and further education, undergraduate and some postgraduate courses at universities and colleges of advanced education. Higher degree students, who are eligible for postgraduate awards do not qualify for AUSTUDY.

ABSTUDY

ABSTUDY (the Aboriginal Study Assistance Scheme) provides financial assistance to all eligible Aboriginal and Torres Strait Islander students and was introduced as part of the Commonwealth Government's commitment to help Aboriginal and Torres Strait Islander people achieve educational, social and economic objectives. There are three components to the ABSTUDY scheme; Schooling, Tertiary and Masters and Doctorate.

Postgraduate Awards Scheme

This scheme provides awards to selected higher degree students undertaking masters and doctor of philosophy programs at Australian universities and colleges of advanced education. They are made on academic merit, are taxable and, although not income-tested, are not available if a certain level of income is received from other awards.

State Government Assistance for Education

The State Government provides a 'boarding away from home' allowance, to supplement the isolated children's allowance paid by the Commonwealth Government. An allowance of \$500 per annum is paid to an isolated child who is obliged to live away from home to attend school.

One thousand dollars per annum is currently provided to students who board at agricultural colleges in Western Australia and do not receive the allowance for isolated children.

The State Government Secondary Assistance Scheme is also available to needy parents who have children in Years 8 to 12 aged under 16. These schemes aim to assist families on low incomes to meet the costs of books, materials and clothing.

The Needy Child Grant of \$110 per annum is to assist needy families with payment of fees for five year old children attending community based pre-schools.

Western Australian Office of Non-Government Education

The State Government established the Western Australian Office of Non-Government Education on 1 July 1994 to co-ordinate and provide advice on policy and resource issues in the non-government education sector, to administer State Government funding of non-government schools, and to register non-government schools.

Funding of non-government schools is provided by means of a direct per capita grant for each student enrolled. The grant incorporates a needs component and separate rates apply to pre-primary, primary and secondary students. The base per-capita grant is supplemented for special education students.

Assistance is also given to non-government schools by way of low interest loans and interest subsidies on moneys borrowed to help meet expenditure on schools' capital development projects. This includes school site acquisition and, at locations north of the Twenty-Sixth Parallel the provision of teacher accommodation.

The State Government also provides an annual subsidy to the Western Australian Catholic Education Office to supply school psychology and guidance services to a majority of non-government schools, both Catholic and non-Catholic, located throughout the State.

New non-government schools receive small grants to purchase primary school reading materials and other basic equipment and materials.

Additionally, other allowances and benefits which are paid to support students' attendance at non-government schools include boarding away from home, and text book and clothing allowances. Non-government school teachers employed at schools in the north of the State are eligible for a travel concession. These allowances and benefits are administered by the Education Department.

Bunnings Turn To CES Staff For Recruitment

Contributed by the Department of Employment, Education and Training (DEET)

One of Western Australia's largest hardware chains is taking advantage of new improved employment services provided by the Commonwealth Employment Service (CES) to remove most of the hassle involved with staff recruitment.

Bunnings Building Supplies will now recruit staff ranging from senior management to sales personnel through the CES.

As part of the agreement CES and Bunnings staff will work together to ensure the recruitment services reflect the company's corporate culture and needs.

The agreement was made following the Federal Government's strategy *Working Nation* which, as part of its overall reform of labour market programs, called for a more personalized service from the CES, including extensive follow-up and a reduction in red tape.

Working Nation provides a comprehensive program to boost jobs growth, increase skills formation in the workforce and ensure the long term unemployed are not left behind during the economic recovery.

The package is designed to meet both the social and economic needs of the nation and to get the whole community working towards the goal of securing jobs and getting the unemployed back to work.

Under *Working Nation* new financial benefits of up to \$10,640 are available to employers.

Wage and training subsidies are offered as an additional incentive to both private and public sector employers to hire jobseekers who, because of their length of unemployment or other difficulties, are unable to compete on an equal basis in the labour market.

Contact your local CES for further details or call the *Working Nation* Hotline on 13 1180.



Signing of the agreement. seated are (left) Geoff Halsey, Area South Manager of DEET and David Farrell, Bunnings Human Resources Manager. standing are Bill Brook, Major Accounts Manager, DEET, and Lorraine Jeffeies, Bunnings Staff Development Manager.

Photograph: DEET

*CULTURE AND
THE ARTS*

Chapter 8

CULTURE AND THE ARTS

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Chapter 8

CULTURE AND THE ARTS

This chapter was prepared in consultation with the following organisations: Department for the Arts, Screen West, the Library and Information Service of Western Australia, the Art Gallery of Western Australia, and the Western Australian Museum.

Culture and the Economy

Australian Bureau of Statistics Household Expenditure Survey figures demonstrate the importance of the Arts to the Western Australian economy. The figures indicate that the domestic market for arts, cultural and entertainment goods and services in Western Australia is approximately \$930 million per year.

Data obtained from the 1991 Census indicates that the total salaries paid to workers in Western Australia's arts and cultural industries was \$415.7 million. However, this figure is likely to be higher as the Census excludes those who had their 'main job' in other industries. During the same year, the total value of goods and services supplied to the Australian economy by the Western Australian arts and cultural industries was \$1.6 billion. The breakup of this amount is shown in the following table.

TABLE 8.1 - VALUE OF GOODS AND SERVICES SUPPLIED BY INDUSTRY

Industry	Total estimated value \$ millions
Motion picture industry	64.3
Other performing and non-performing arts	322.7
Library, museums and art galleries	67.3
Publishing	371.2
TV and audio equipment	51.8
Architectural and advertising services	737.7
Total	1,615.0

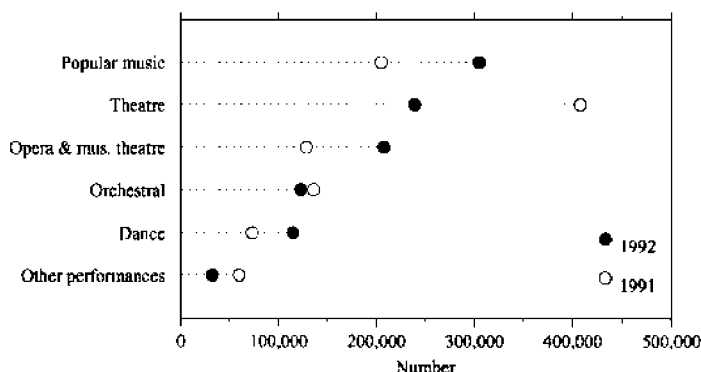
Source: Department for the Arts

Music and Performing Arts at Major Venues

In 1991 and 1992 the Australian Bureau of Statistics conducted a survey of major venues staging music and performing events in Australian capital cities. In 1992, the survey covered 14 major venues in Western Australia, with a total seating capacity of 23,224. The results of this survey indicated that during 1992 there

were 2,080 separate performances, attended by more than one million people.

DIAGRAM 8.1 - ATTENDANCE AT MAJOR VENUES
Type of Event



Source: Catalogue No. 4171.0

Work in Selected Culture/Leisure Activities

The Australian Bureau of Statistics undertook a survey of Culture and Leisure in March 1993. This survey found that during the 12 months ended March 1993:

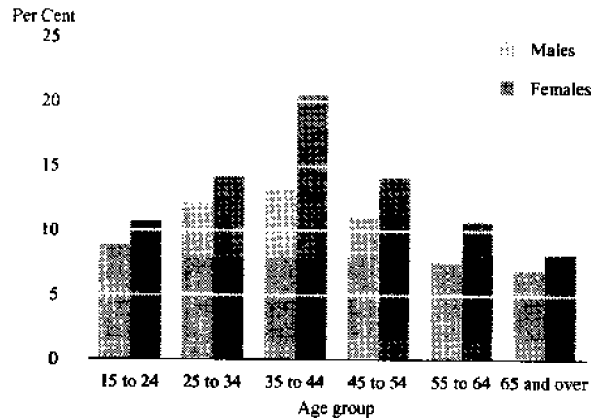
- 156,600 people or 12.0 per cent of the Western Australian population aged 15 years or more were involved in selected cultural or leisure activities; in addition
- a further 122,900 people were involved in some form of hobby activity involving either art/craft activities, writing/publishing, or music.

TABLE 8.2 - PERSONS INVOLVED IN CULTURE AND LEISURE ACTIVITIES BY SEX, MARCH 1993
Reference: Catalogue No. 6281.0

	Paid involvement only	Unpaid involvement only	Paid and unpaid involvement	Total persons involved
	'000			
Males	9.2	43.8	15.2	68.2
Females	13.0	59.2	16.2	88.4
Total	22.1	103.0	31.4	156.6

The survey also found that females had a higher participation rate than males for all age groups, and for all categories of employment. For example, 13.6 per cent of females over the age of 15 participated in some form of culture and leisure activity, compared with only 10.5 per cent of males.

**DIAGRAM 8.2 - PARTICIPATION RATE OF THOSE INVOLVED
IN CULTURE AND LEISURE ACTIVITIES BY AGE AND SEX**
March 1992-93



Source: Catalogue No. 6281.0 (Unpublished Data)

The Western Australian Department for the Arts

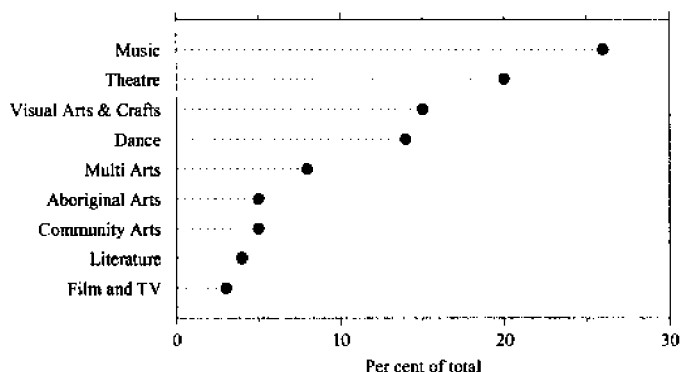
The Western Australian Department for the Arts was established in 1986 to advance the cultural development of Western Australia. The arts portfolio embraces the statutory authorities of the Western Australian Museum, the Art Gallery of Western Australia, the Library and Information Service of Western Australia (LISWA) and the Perth Theatre Trust. The Arts portfolio also includes Screen West (which replaced the Western Australian Film Council in 1994).

Central to the role of the Department is support for the range of arts organisations and creative cultural practices that enrich the lives of Western Australians. The Department also has an important role in the provision of advice to Government to assist in the formation of policies to promote the arts in Western Australia, and is responsible for administering Western Australia's Arts Grants Program. During 1992-93, total grants of \$10.4 million were provided.

During the course of 1995 a number of initiatives were undertaken to change the way that regional arts funding was managed. Under a new scheme Country Arts WA, a Perth-based arts agency, took over aspects of regional arts development from the Department for the Arts. Country Arts WA has a well established and strong regional board of management with strong regional representation throughout the state. With a total investment of State funds of \$760,000 it became one of the major arts organisations to receive funds.

During 1995 the WA Arts Portfolio also implemented new procedures to assist regional local government in planning for cultural development. Under this policy the Department for the Arts provided funding towards cultural plans which would form the basis of partnerships between local government and the Arts Portfolio.

DIAGRAM 8.3 - ARTS GRANTS BY ARTFORMS
1992-93



Source: The Department for the Arts

Screen West

Screen West is responsible for assisting the development of a diverse and commercially successful film industry in Western Australia, as well as creating an active and informed screen culture.

Screen West's main focus is to provide development loans and strategic investments as a means of bringing marketable film and television projects to fruition. Through these funding mechanisms it supports a diverse range of projects, including feature films, television series, documentaries, telemovies, short films and mini-series. Among the productions assisted were Barron Entertainment's children's drama series *Ship to Shore 2*, Prospero Production's *Shipwreck Coast*, and CM Films' food programs *Let's Eat* and *Home from the Sea*.

The agency also administers the Lotteries Commission Film Incentive Schemes, which collectively provide payments totalling approximately \$2 million each year. These Schemes support the employment of Western Australian film practitioners, flexible production financing of commercial film and television projects and the provision of awards for excellence.

Library and Information Service of Western Australia

The Library Board of Western Australia is an accountable authority which through the Library Information Service of Western Australia (LISWA) is the custodian of the State's collection of library, information and archival resources.

The State Reference Library, situated in the Alexander Library Building, provides an extensive reference service covering arts and literature, social sciences, information technology, business information and science and engineering. It maintains an extensive map collection, has a lending and listening music collection and a lending film and video collection.

**TABLE 8.3 - THE LIBRARY BOARD OF WESTERN AUSTRALIA
1994-95**

	Unit	
CRF Allocation	\$	24,927,792
Staff (a)(b)	No.	303
Associated public libraries	"	229
Books		
Total circulation stock (a)	"	2,214,377
Public libraries exchange program -		
Volumes despatched	"	502,649
Inter-library loan requests arranged	"	39,876
Enquires in Reference Library	"	195,134
Visitors to Reference Library	"	460,065

(a) At 30 June 1995. (b) Number of full-staff plus full-time equivalent units of part-time staff.
Source: LISWA

Through its Public Libraries Services Program LISWA, in consultation with local government authorities, provides and maintains bookstock and other resource material for public libraries throughout the State.

Western Australian Museum

The Western Australian Museum, which celebrated its one hundredth birthday in 1992, has its headquarters and principal display galleries located in the heart of the Cultural Centre. It has established branches in Fremantle (the Fremantle Museum, Western Australian Maritime Museum, Samson House and the Historic Boats Museum); Albany; Geraldton; and the Goldfields.

Museum Events in 1995

There were 11 new or upgraded permanent exhibitions opened at various sites of the Museum during 1994/95. At the Perth Museum site a new Bird Gallery and Interactive area depicting birds of the Swan Coastal Plain and the Megamouth Shark exhibition which placed a rare marine specimen on display were features. At the Fremantle History Museum site a new exhibition marked the completion of the first stage of a full exhibition revision in this museum. History of the Asylum relates the stories associated with the many uses of the old Fremantle Asylum building in which the Museum is housed. Additions to the

The Garrick Theatre Inc.

The Garrick Theatre in Guildford, Western Australia, can claim to be the oldest amateur theatre in Western Australia. It was founded in 1932 and claims to have been in constant operation ever since. It is housed in an historic building which it has occupied since 1933 except during the war years when the building was in use as an A. R. P. centre.

The building was erected by convicts in 1853 as the Commissariat store and comprised the store room, engineer's quarters and district office.

The club, with the assistance of the local council has over the years extended the complex with the addition of a large foyer and kitchen. The club is the first amateur theatre to be air conditioned and to have a revolving stage.

The Garrick Theatre mounts at least six major productions a year, each running for a three week season. The club has a 100 seat auditorium and fills on average 70 per cent over the year. The club membership stands at 250 which is drawn from the local suburbs with some from as far afield as Kalgoorlie, Esperance and Port Hedland.

The plays and shows mounted are from the local theatrical spectrum and include original works. The club enjoys a reputation for its professional standards and many of its members have entered the professional theatre world wide.

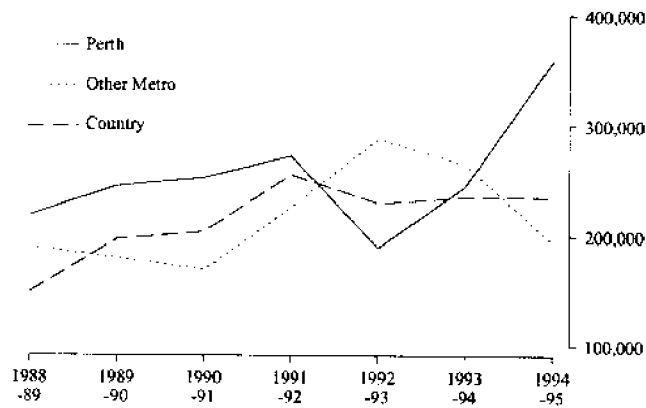


Batavia gallery at the Western Australian Maritime Museum completed the story being told by the Batavia wreck. In addition, eleven travelling exhibitions were placed on display over six museum sites. Among these, there were the Great Russian Dinosaurs Exhibition, 66 South, Tales from an Antarctic Station, and Muslims in Australia.

The Art Gallery of Western Australia

The mission of the Art Gallery of Western Australia is to develop and present the best public art collection in the State and the pre-eminent collection of Western Australian art, and to increase the knowledge and appreciation of the art of the world for the enjoyment and cultural enrichment of the people of Western Australia.

DIAGRAM 8.4
VISITORS TO WESTERN AUSTRALIAN MUSEUMS



This is achieved through an extensive program of exhibitions selected from the Gallery's permanent collection of art works together with touring international and national exhibitions. To complement these exhibitions the Education Section provides a comprehensive program of activities for children, students and adults with lectures, films, videos and creative classes, together with tours presented by Voluntary Gallery Guides.

The collection policy of the Gallery places emphasis on the acquisition of Western Australian art, Australian and international contemporary art, and Aboriginal art.

During the 1994-95 financial year, the total attendance at the Art Gallery of Western Australia was 326,679.

Exhibitions in 1994-95

Major international exhibitions during 1994-95 included *Art of the Himalayas - Treasures from Nepal and Tibet*, *Otto Dix - The Critical Graphics 1920-1924* and the *Robert Maplethorpe Retrospective*.

Centenary Galleries

The Art Gallery of Western Australia's centenary year, 1995, heralded the re-opening of one of the state's finest and most significant heritage buildings. On 31 July 1995 the Premier of Western Australia, the Hon. Richard Court. MLA, officially opened the new Centenary Galleries - formerly the old Perth Police Courts on the corner of Beaufort and Roe Streets. When this building was vacated in 1982 it was vested in the Art Gallery of Western Australia.

The restoration work on the Perth Police Courts was initiated through a Federal Government Heritage Properties Restoration Program grant in 1992. At \$1.1 million it constituted the nation's largest single grant for a heritage project. The Western Australian State Government contributed a further \$2.8 million to transform the building into the Centenary Galleries.

The former Perth Police Courts were designed by the Public Works Department Chief Architect, John Grainger, assisted by Hilton Beasley, who brought the project to completion in 1905. The building reflects a late nineteenth century interpretation of the French Renaissance style, unusual in Perth architecture of the period. Western Australian materials were used exclusively, including Donnybrook stone for the building facades, jarrah for floors and interior furnishing and stained glass feature panels. The ornate ceilings were Australian manufactured pressed metal and add an ambience that is reminiscent of a bygone era.

Features of the renovations include a garden linkway between the Gallery's main building and the Centenary Galleries and conversion of three main court rooms and several smaller rooms to a linked suite of five large exhibition galleries. One of the Police Courts retains all original court room fittings and the adjacent cells. Major mechanical services including lighting and air conditioning have been provided to international standards.

For the first time the Art Gallery's collection of 18th and 19th century Australian and international paintings, prints, drawings, crafts and sculpture are elegantly showcased in the Centenary Galleries, offering visitors a unique opportunity to experience significant heritage art works within the ambience of a gracious historical environment.

Important exhibitions of Western Australian art organised by the Art Gallery included *Karl Wiebke: Painting 1971-1993, Derivations and Directions - the Work of Elizabeth Durack 1930s to 1950s, Year 12 Perspectives* and *One Hundred Years of Western Australian Sculpture 1895-1995*. Exhibitions from interstate Galleries were *Mambo: Art Irritates Life, Arthur Boyd Retrospective* and *A Century of Australian Masterpieces from the Art Gallery of South Australia 1900-1900*.

Bunbury Art Galleries The Bunbury Art Galleries maintained a full program of exhibitions, public program events and outreach services to communities and schools of the region. Highlights included a sculpture symposium in October 1994 - in conjunction with the exhibitions *Tony Jones, Sculptor* and *In Spirit and Form*; the participation in the Australia wide National Women's Art Exhibition with the exhibition *Drawings from the Past*, involving 15 regional women artists; a strong demonstration in fostering regional artists through the 1995 *South West Survey* and the inaugural primary school exhibition *Genesis*. Jenni Doherty, a textile/fabric artist, was the artist-in-residence.

Attendance during 1994/95 was 22,000.

Geraldton Regional Art Gallery The Geraldton Art Gallery presented 30 exhibitions over the year, together with education programs and outreach support. A range of diverse activities such as banner making, children's workshops and concerts complemented the exhibition program, which included *The Abrolhos Islands, Geraldton Arts Society Annual Exhibition, Jukirpa Wankaru Juku - Keeping the Dream Alive, Portraits of Australia*, and *Ariel's Song - Audrey Greenhalgh 1903-1991*.

Video Paradiso, the new arthouse cinema within the Gallery has made a significant impact with two film seasons screened in addition to features films and documentaries in conjunction with exhibitions.

Total attendance in 1994/95 was 20,800.

The 1995 Festival of Perth The Festival of Perth is the oldest, and largest annual international multi-arts festival in the southern hemisphere. The 1995 Festival featured 1,117 performances and events with over 900 artists from 21 countries and was attended by 596,991. The Festival also featured 646 free events. It embraced 4 world premieres and 14 Australian premieres. The associated Film Festival featured 23 international films at two outdoor venues.

Fourteen Western Australian companies presented works at the Festival, including The Black Swan Theatre Company, Barking Gecko Theatre Company, Perth Theatre Company, West Australian Symphony Orchestra, and The West Australian Youth Orchestra.

Twenty-seven international media organisations broadcasted or printed stories about the Festival. On the local, regional and

A particular highlight of the 1995 Festival was the sunset concert by the Odessa Philharmonic Orchestra at the majestic Abbey-Vale Vineyard. Another favourite of both the public and media was *The Cars that Ate Paris*, presented by Australia's Northern Rivers Performing Arts.

ABS Publications

- ABS Publications*
- Music and Performing Arts at Major Venues in Capital Cities, 1991*
(4171.0)
- Time Use of Culture/Leisure Activities, 1992* (4173.0)
- Work in Selected Culture/Leisure Activities, Australia, March 1993*
(6281.0)
- Other Publications*
- The Western Australian Museum, *Annual Report, 1993-94*
- Vital Statistics - Western Australian Cultural Statistics, October 1993 (a consultancy undertaken by the ABS for the Department for the Arts)
- This chapter was prepared in consultation with the following organisations:
- Department for the Arts
- Screen West
- Library Information Services of Western Australia
- The Art Gallery of Western Australia
- The Western Australian Museum

SPORT AND RECREATION

Chapter 9

SPORT AND RECREATION

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Chapter 9

SPORT AND RECREATION

Compiled from the annual report of the Ministry of Sport and Recreation

Introduction

Raised expectations in the community for a responsive and relevant sport service that meets the needs of members is pressuring sport to raise its performance.

It has become evident that quality in leadership and management and maintaining and strengthening the financial viability of State sporting associations is essential if the very best sporting opportunities are to be provided for Western Australians.

The Ministry of Sport and Recreation works using a supportive role with all sectors of the sport industry and is conscious of the need to balance its involvement in the belief that individual sports should make decisions and plan for their own future.

In assisting sport to respond to a changing market place the Ministry is emphasising the need for State associations to identify target markets, develop human resources and continually review their mode of operation. Wherever possible this is done from an information base thereby making change more acceptable and increasing the likelihood of success.

Sport research

Two levels of research were undertaken during the year. Firstly, that relating to overall sport industry policy development and secondly, to assist individual State sporting associations address specific issues of concern to them which would influence their future directions.

With the financial assistance of Healthway, research examining *Specialist Sport Programs in Western Australia Schools* and *Regional Development Officers and Country Sport* has been undertaken. Both areas represent major initiatives and have been examined with a view to how sport may better use them. A consultative phase with State sporting associations and other partners is to follow.

Three research proposals were finalised by the Ministry. Two submissions were presented to Healthway to research the *Impact of National Leagues in Western Australia* and *Student Priorities and the Promotion of Community Sport*. The third will examine issues relating to the provision and management of existing and new international standard sport facilities.

Two further research projects were completed. The first was to review the Sport Administration courses presented by the Australian Society of Sport Administrators (ASSA). The second project examined the level of participation of netball players in competitions operating outside of the Western Australian Netball Association jurisdiction.

Supported by the Ministry, the Artificial Surfing Reef Committee investigated the need, location, preliminary design and construction options for a reef. State Cabinet agreed in principle to a reef being built at the Cable Station Beach, subject to satisfactory environmental clearances, negotiation with local government and examination of sources of funding. A new committee is overseeing this under the chairmanship of Mr Mike Board, MLA.

With the assistance of the Speedway Review Committee, an investigation into safety issues and the structure of speedway was completed by the Ministry of Sport and Recreation.

Asia

The Ministry supported the Asian Sporting Relations Council in its endeavours to build sporting links in the Asian region and on the Indian Ocean rim. Visiting sporting delegations came from several countries in the region, including Thailand, Malaysia, Indonesia, South Africa and Japan.

The Ministry also provided assistance in collating the data for the groundbreaking CD ROM *Sport in Western Australia*. The CD was developed by the Council and the University of Western Australia's Development Unit for Instructional Technology. It has an overview of 32 key sports in Western Australia, including data on their respective facilities, venues, competitions and personnel. It was sponsored by Qantas and Clough Engineering.

Recreation

The Recreation Division's philosophical base – the delivery of recreation from a wellness approach – is constant and underlies the Division's operations and delivery.

In 1994-95 the Division's focal points were:

- *To have recreation heard in decision making processes;*
- *To develop an understanding of the significant role that recreation plays in enhancing Western Australia's lifestyle;*
- *To further the role the Division plays in developing the recreation industry; and*
- *To enhance its operations, the Recreation Division continued to co-work with the industry and provide information, education and support to its clients and target markets. The Division continued to keep its programming base small, with educating and resourcing being the major part of the Division's operations.*

Awareness and promotion

Wellness day

The event continued to grow significantly in 1994, attracting 84 local government authorities and more than 205,000 participants. Managed by the Ministry, in conjunction with local government, Wellness Day celebrates the unique sport and recreation lifestyle in Western Australia.

A primary school drawing and writing competition was introduced for the first time.

WA Recreation

Personnel directory

This resource, listing the names and contact details of people in the recreation industry was updated and reprinted twice during the year.

Active Achievers

The Division was again represented on the Women in Sport Active Achievers program, which aims to educate young people on career opportunities in sport and recreation and on the importance of a healthy and active lifestyle.

Radio show

The Division regularly contributed to a recreation segment on commercial radio in Perth.

Corporate sector

In partnership with the Australian Wellness Foundation, seminars and conferences were held to promote the wellness concept and to change the way organisations and communities think about the meaning and value of a wellness lifestyle. Two major conferences and a series of seminars were held. In early December 1994, Sydney hosted the first part of the National Wellness Conference with 60 professionals attending, while 90 people attended the Perth segment a few days later.

Regional and Aboriginal Services

The Regional and Aboriginal Services Division works closely with the other Divisions to create environments in which country and Aboriginal people have the skills and opportunities to participate in the sport and recreation activities of their choice.

The Division places great emphasis upon working with others in the community, such as local government and community sport and recreation groups.

The Division supports nine regional offices, with 31 staff based in Perth, Geraldton, Carnarvon, Karratha, Broome, Kununurra, Kalgoorlie, Albany, Bunbury and Northam. This includes two staff on short term contracts working specifically in Aboriginal sport and recreation in the Pilbara and Midlands-Central South Regions. The unique physical and social environments of each region are reflected in each region's operational plan and the context in which staff work at the local level. This is critical for the Ministry's effectiveness and the quality of service provided to rural clients.

A Century of Lacrosse in WA

The introduction of Lacrosse into WA was the direct consequence of gold discoveries in the Eastern Goldfields. Two former players from the eastern states, F Parsons and F Wingrove, arrived in Perth in 1895. Their enthusiasm resulted in the formation of the Perth and Fremantle Clubs in 1896. Two further clubs, Mercantile (centred in a merchandising warehouse) and Cottesloe (later Banks), were formed in 1897. A formal competition commenced in 1898.

During 1899, a "coastal" team visited the goldfields where a local devotee, Arthur O'Connor was nurturing the sport, principally in Coolgardie. From then until 1914, a regular fixture, Coastal V Goldfields, was conducted. Later attempts to revive the game in Kalgoorlie, in the 1930s and later in the 1980s, both failed.

Deficiencies in both equipment and technique were revealed when a Canadian team visited WA in 1907. The visitors proved their superiority in 4 matches conducted in Perth (at the W.A.C.A ground), Fremantle and the Goldfields. Subsequent changes adopted in the local competition persisted for the next 50 years, when further overseas developments became evident.

After an initial surge of interest and despite WA's participation in interstate competition in 1910 and 1912, Lacrosse began to languish and by 1914 only 3 teams had survived. All fixtures were suspended for the duration of WWI.

Mainly through the vision and enthusiasm of Mr C. Hickey and Mr I. J. Taylor (the donor of the I. J. Taylor Shield for Division 1 premiers) Lacrosse was re-established in Perth and Fremantle regions in 1921. Both of these gentlemen became and remained dominant forces in the WA Lacrosse Association and the Australian Lacrosse Council for many years. By 1930, eight clubs were involved in senior competition.

In the period 1925 to 1939, a representative WA team competed (unsuccessfully) in national championships.

Senior fixtures were again abandoned in 1942, by which time most of the players had answered the call to the service. A junior competition for 8-a-side teams continued and it was players from this era who made a significant contribution to the game in the post-war period.

Full competition recommenced in 1946 with 9 clubs participating in both senior and junior grades.

Perth played host to the 1947 National Championship at which WA experienced its first success. Six WA players were selected in the Australian team that year. The National crown was not regained until 1972. However, since 1980 this state has dominated the National Competition by winning the trophy 10 times in the period 1981-95.

Australia's entry into international Lacrosse was precipitated by a visit of a combined US team from Virginia and Washington Lee Universities. Again it was evident that Australia was lagging in all aspects of the game.

An Australian team which toured the US in 1962 contained 3 players and an official from WA who were to make very significant contributions to the game and Australia's international competitiveness: Laurie Turnbull, who negotiated for Australia's entry into international competition: Bob Ramsay a veteran player, who became State and National coach and Brian Griffin who later was acclaimed as one of the greatest ever exponents of the game. Subsequently, he and Jeff Kennedy were recognised in the US Sporting Hall of Fame. Brian was also the only Lacrosse player to be named a WA Sportsman of the Year in 1969, and included in the WA Hall of Fame. By 1967, Australia was more prepared when it sent a team to Toronto (Canada) for a four nation tournament. The team, which contained 8 players from WA, performed creditably.

The official World Series of matches to be held on a 4 year rotational basis commenced in Melbourne in 1974. WA provided 7 players to the National team. In subsequent Championships WA provided 2 players in Manchester (1978), 5 players in Baltimore (1982), 7 in Toronto 1986, 11 in Perth (1990) and 8 in Manchester (1994). Players from WA received international recognition in 1982 when Jeff Kennedy was named Most Valuable Player of the Series and Peter Cann named in the World All-Stars. At Toronto in 1996, Peter Cann received the M.V.P award and he and Jeff Kennedy played in the All Stars. In 1990, Murray Keen became the All Star goal-keeper and in 1994, Stephen Mounsey became All Star defence.

The undoubted highlight of Lacrosse history in WA was the hosting of the World Series in Perth in 1990. Don Rudderham headed the organising team, which planned and conducted a tournament which surpassed all previous events and has not since been equalled. Financial gains from the event have been entrusted to the WA Lacrosse Foundation (est. 1991) for the further promotion and development of the game in WA.

Since WWII the numerical club and player strengths have been static. In 1995 competition comprised 7 clubs participating in 2 senior and 3 junior divisions.

Sof-crosse and Mod-crosse, modified versions of Lacrosse more suitable for younger children & adolescents, were adopted in 1982. Sof-crosse was included in the Aussie Sports Programme in 1984-85, and proved to be immensely popular. It was acclaimed in 1987 as the fastest growing sport in the Programme. It has now been introduced into more than 750 schools, involving more than 4000 students. The Mod-crosse programme has expanded from 3 clubs and 59 players in 1987 to 8 clubs and 360 players in 1995.

The dedication and efficiency of earlier administrators, C.E.M Hickey, I.J. Taylor, R.W. Elliot, J.L. Corden, A.R. Page, L.Turnbull, W.A.Whiteman, and H.V. Harner, all of whom provided a life-time service to Lacrosse, established a standard which is being maintained at state and national levels by current leaders, M. Stokes and D. Rudderham.

Sport and Recreation

Major achievements for 1994-95

The Division's major achievements included:

- *Facilitating 172 applications for grants equalling about \$6.25 million under the CSRFF.*
- *Increased funding of regional Development Plans to 48 per cent of Country Package.*
- *Research into the sport and recreation needs of Aboriginal people in the South West.*
- *A State Aboriginal Sport and Recreation Conference in Kalgoorlie.*
- *Sponsorship negotiated with Skywest Airlines for approximately \$12,000 worth of travel for country sports people in 1995-96.*
- *Support for the Northern Regions Recreation Conference.*
- *Staff exchange with Calgary Parks and Recreation (Canada) for 12 months.*
- *Successful negotiations of the Ansett Australia Sport Development Program for \$50,000 worth of travel for country people. (The fourth year of this sponsorship)*

Areas of emphasis

The Division operates in five areas of emphasis:

- *Research and development;*
- *Education and information;*
- *Networking;*
- *Participation and achievement;*
- *Resourcing; and*
- *Research and development.*

Through appropriate research, the Ministry assists other agencies in creating the physical environment which increases opportunities to participate in appropriate sport and recreation.

Development plans

Ministry staff worked with several sports on 23 development plans, as well as with groups such as the Broome PCYC, the Mid West Sports Federation, the Pilbara Recreation Association and the Geraldton Sporting Aboriginal Corporation.

Performance indicators:

Effectiveness

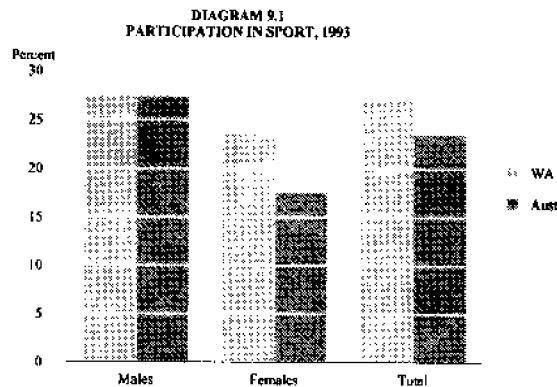
The Australian Bureau of Statistics found that 333,000 Western Australians, fifteen years of age and over, participated in organised sport and active recreation. This represents 25.3 per cent of the State's population and is significantly higher than the average participation in Australia (22.3 per cent) (see graph, page 153). It includes regular and irregular participants.

The rate of participation of males in WA was 27.4 per cent compared to the average of 27.3 per cent for Australia; for females, the rate of participation was 23.1 per cent for WA compared with 17.4 per cent for Australia.

The data also presents a different picture to that used as the basis for the 1993/94 indicator. The one-off collection used then was based on involvement in sport in the twelve months prior to the survey. The current data is based on participation in the week prior to each survey and would be expected to be smaller because of seasonal influences.

However, the collections are internally consistent across Australia and the conclusion in both years that Western Australian's participation is higher than the Australian average is valid.

The Ministry's 1993 Sport Census showed there were 132,000 registered participants in Western Australia under the age of thirteen and 75,000 between thirteen and eighteen.



Source: 1993 Sport Census, Ministry of Sport and Recreation

Scouts of Western Australia

Scouts offer a challenging program that develops young people physically, intellectually, socially and spiritually. It is primarily made up of volunteers who support and deliver a values based educational program to over 7,000 young people.

The program is open to all young people and covers all beliefs and ethnic backgrounds. It provides opportunities for young people from six to twenty six years to participate in a wide range of educational activities in a progressively self-directing environment, aimed at developing inter-personal skills, confidence, self-esteem and citizenship qualities.

To develop leadership skills.

To develop an understanding of personal and community health and fitness.

To develop a better understanding of the world's people.

To develop a sense of democracy and justice.

To develop the opportunity to express and respond to their own spiritual needs.

Scouting is for males and females and is divided into 5 youth sections. They are Joey Scouts (6 & 7 year-olds), Cub Scouts (8 to 11 year-olds), Scouts (11 to 15), Venturers (14 to 18) and Rovers (18 to 26).

In Western Australia, as well as over 7,000 registered young people involved, there are over 260 chartered Scout groups from Kununurra in the north to Esperance in the south and everywhere in between. The young people are assisted by 1,500 trained leaders and over 1,000 supporters.

Jamboree 1995

Western Australia hosted the 15th Asia Pacific 17th Australian Jamboree at Perry Lakes in January 1995. 12,000 scouts camped for 10 days participating in activities ranging from a day at the beach to sailing, horse riding, flying and 101 other activities.

The participants came from all parts of Australia and over 25 countries around the world, with a budget well over \$5 million, and with the money spent during activities and later, it is

estimated that the Jamboree injected over \$8 million into the Western Australian economy.

Parental Support

As a major youth-serving organisation The Scout Association is deeply concerned about the general welfare of children. Out of that concern three parental guide books have been released – one on *child abuse protection*, *drug abuse protection* and *finding your son and daughter a job*.

These books are available free to any member of the community.

Child Abuse Protection

The Scouts have been developing and continuing their policies on child protection. This year a new code of conduct was introduced for all leaders, a new 10 point check list on leader selection and new guidelines on interviewing and selecting adult leaders.

Adult Leader Training

The existing training program has been updated and recently received national accreditation from DEET. The program has been titled Youth Leadership and is delivered in a modularised format.

Cultural Exchange Program

This new program has received recognition and approval from the Education Department to be made available for all scouts to participate in a cultural exchange program with Japan, Malaysia, Singapore and the Maldives.

THE ECONOMY

Chapter 10

THE ECONOMY

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Chapter 10

THE ECONOMY

Highlights

The Western Australian economy grew by 5.25 per cent in 1994-95 following near record growth of 7.4 per cent in 1993-94.

Private consumption expenditure, business investment and the external sector made the most significant contributions to growth in 1994-95.

Employment continued to rise through 1994-95 with the unemployment rate trending downwards throughout the year to reach a four year low of 7.2 per cent early in 1995.

The outlook is for sustained growth in the Western Australian economy. In 1995-96 the economy is expected to grow by 4.25 per cent, led by a strengthening external sector. Domestic demand is anticipated to expand at a steady rate, ensuring inflation and wage pressures remain low.

The economy in 1994-95

Economic growth in Western Australia remained strong in 1994-95. The State's economy is estimated to have grown by 5.25 per cent in real terms following near record growth of 7.4 per cent in 1993-94.

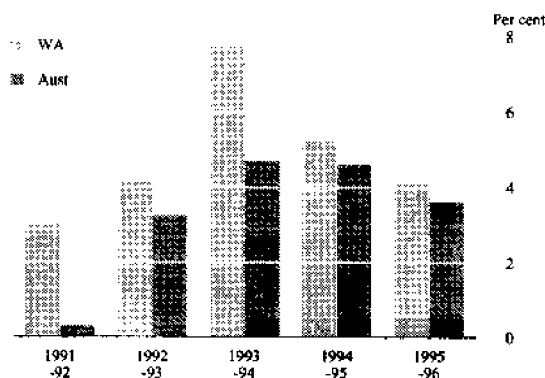
In this economic recovery, the Western Australian economy has grown by 21.2 per cent, compared with 13.6 per cent for the national economy (see Diagram 10.1). Economic growth in Western Australia and Queensland continues to outpace that of all other States.

The sources of Western Australia's growth remain broadly based. Private consumption expenditure, business investment and net exports have consistently contributed to growth since the recovery commenced in 1991-92.

Most recently, business investment and particularly exports have become more significant as growth in private consumption expenditure has eased from high levels. This is illustrated in Diagram 10.2 which shows real final demand (which excludes the external sector) is moderating. However, activity levels across most sectors remain above or proximate to previous peaks.

The following sections examine Western Australia's economic performance in 1994-95 both on the basis of Gross State Product (GSP) growth and on an industry basis.

DIAGRAM 10.1
REAL GROSS PRODUCT GROWTH



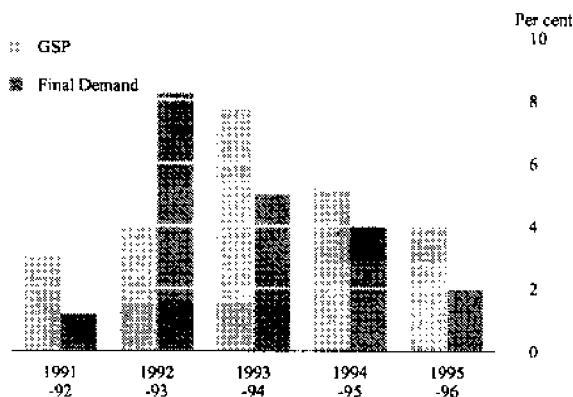
W.A. Treasury and Commonwealth Budget estimates for 1995-96

Gross State Product

Gross State Product (GSP) provides the broadest measure of economic activity in terms of the value of an economy's output. GSP can be measured by two different methods - summing expenditures, or aggregating factor incomes. Real expenditure based GSP is the measure referred to in this document and is the sum of all final expenditures in the economy. It includes private and public sector consumption and investment expenditures, changes in stock levels and the net result of exports minus imports.

Australian Bureau of Statistics (ABS) estimates of real expenditure based GSP on a State basis were first published for the September quarter 1994. The most recent ABS publication provides data to the December quarter 1994. Beyond this period, all data are based on Treasury estimates unless otherwise stated.

DIAGRAM 10.2
REAL GSP AND FINAL DEMAND GROWTH
Western Australia



1995-96 figures are forecasts

Real Final Demand

Real Final Demand is a sub-set of GSP. It includes only the domestic portion of the economy (ie private and public consumption and investment expenditure). It does not encompass the external sector (ie exports minus imports) and movements in stocks.

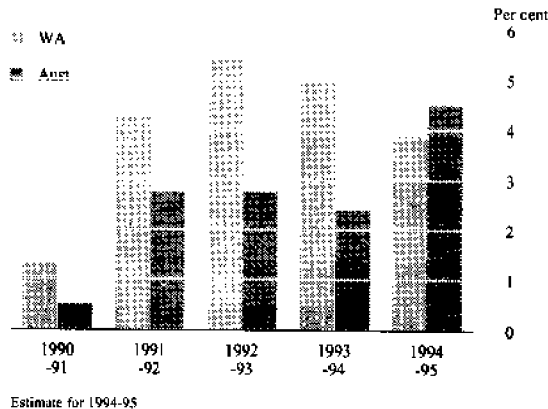
Consumption

Private Consumption

Over the past four years, private consumption expenditure made a substantial contribution to economic growth. In 1994-95, real consumption expenditure remained resilient, with growth of 4.0 per cent in real terms. While this represented a slight moderation from growth of 5.1 per cent in 1993-94, private consumption expenditure nevertheless added an estimated 2.0 percentage points to GSP growth in 1994-95.

Diagram 10.3 illustrates that in this economic upswing, growth in private consumption expenditure in Western Australia has been consistently strong. Over the past five years consumption growth on average has been higher than in any other State and around double national growth. The stronger national growth in 1994-95 reflects Western Australia's more advanced growth in the economic cycle.

DIAGRAM 10.3
PRIVATE CONSUMPTION EXPENDITURE
Real Annual Growth



The resilience of private consumption expenditure in Western Australia in recent years reflects the strong growth in household disposable income, coupled with a substantial strengthening in new dwelling activity and buoyant consumer confidence.

The growth in household disposable income has largely been due to strong employment growth. This has been augmented in recent years by a significant increase in the rate of participation in the labour force. Furthermore, despite increased mortgage interest rates over the year, mortgage servicing costs remained low relative to the late 1980s.

Partial indicators of private consumer spending in Western Australia illustrate the easing in growth that has occurred in the latter half of 1994-95. In particular:

- retail turnover increased by an estimated 4.0 per cent in real terms in 1994-95, following strong growth of 6.4 per cent in 1993-94; and
- following growth of 4.9 per cent and 6.6 per cent respectively in the previous two years the number of new motor vehicles purchased rose by around 3.4 per cent in 1994-95.

The easing of growth in private consumption expenditure late in 1994-95 is consistent with measures of consumer confidence that showed consumers were particularly concerned by interest rate developments during that time. For example:

- the Master Builders' Association Survey of Buyer Confidence revealed a deterioration in consumer confidence in Western Australia in early 1995, due to expectations of further interest rate rises. However, consumer confidence recovered towards the end of 1994-95, following the release of the Federal budget; and
- at the national level the Westpac-Melbourne Institute Index of Consumer Sentiment indicated that consumer confidence fell markedly from its peak early in 1994-95. However the release of the Commonwealth Budget also brought a lift to confidence nationally.

Public Consumption

Growth in public consumption expenditure has been arrested in recent years. In 1993-94 growth in public consumption was 2.2 per cent and is expected to moderate further to 1.5 per cent in 1994-95. Over the past 5 years public consumption has increased by an average of 2.9 per cent per year.

Investment

The level of confidence in the Western Australian economy continued to be underlined by strong growth in investment expenditure in 1994-95. Total private investment expenditure is again anticipated to add significantly to economic growth, the third consecutive year that this has occurred. In real terms, Western Australia's total private investment is estimated to rise by 7.5 per cent, adding around 1.5 percentage points to economic growth. Western Australia's investment performance has far exceeded the national performance over recent years.

Total investment is comprised of:

- private investment comprising dwelling investment and business investment (both equipment and non-dwelling construction); and
- public investment.

Components of Private Investment

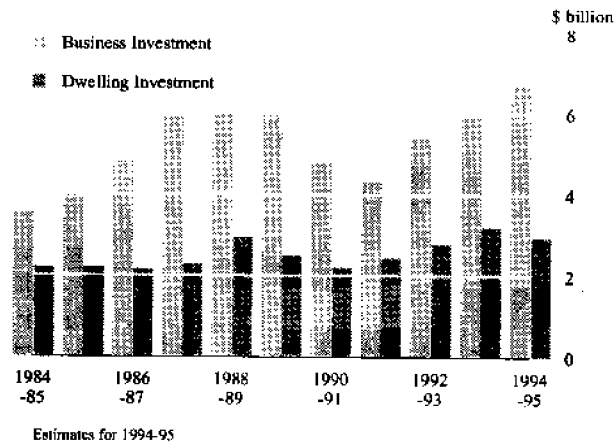
Total investment includes gross fixed capital expenditure of the private and public sectors. Private sector investment expenditure accounts for over 86.9 per cent of total investment in Western Australia and represents over 21 per cent of GSP, compared with 17 per cent nationally.

Within Private Sector investment:

Dwelling investment

Dwelling investment consists of expenditure on new dwelling construction, spending on alterations and additions to existing dwellings and real estate transfer expenses, which include various conveyance and transaction fees. Dwelling investment accounted for 32 per cent of Western Australia's total private investment in 1994-95, compared with an estimated 39 per cent nationally.

DIAGRAM 10.4
TOTAL PRIVATE INVESTMENT
Western Australia



Business Investment

Business Investment comprises expenditure on both new and second hand assets, less sales of similar second hand goods, and accounts for almost 70 per cent of private investment. Business investment can be disaggregated by the following asset types:

- *Equipment* investment accounts for around 50 per cent of Western Australia's private investment, compared with 46 per cent nationally. Equipment investment includes purchases of mining machinery and equipment, office equipment, furniture and fixtures, vehicles, aircraft, ships, electrical apparatus and special tooling.
- *Non-dwelling construction* covers such assets as industrial, commercial and non-dwelling residential buildings (e.g. hotels and motels), sewerage and water installations, land development, roads, railway lines, harbours, and power and telephone lines. Around 18 per cent of Western Australia's private investment is attributable to non-dwelling construction.

Business Confidence

The strength and diversity of spending on both equipment and non-dwelling construction in Western Australia is illustrated by the latest survey conducted by Access Economics on investment plans in Australia. This survey indicated the total value of investment projects in Western Australia which are committed or under consideration rose by 17.8 per cent over the past year.

In the most recent quarter, the Access Economics' survey identified an additional \$2.7 billion in planned investment projects in Western Australia. This was the largest increase of all the States and accounted for 80 per cent of the increase in projects identified in the quarter. Western Australia now accounts for more than 25 per cent of the nation's total value of investment projects committed or under consideration. This clearly highlights the substantial prospects for the Western Australian economy over the medium term.

The latest ACCI/Westpac Survey of Industrial Trends also indicates business confidence in Western Australia remains high. The survey only encompasses manufacturers. It indicates that expectations for output, plant and equipment investment, employment, and exports were stronger in Western Australia than virtually all other States and significantly stronger than nationally. Similarly, the latest Yellow Pages Small Business Index indicated that confidence among Western Australian small businesses continued to exceed that in any other State.

Public Investment

Investment spending by the public sector declined further in 1994-95, albeit at a slower rate. Public sector investment fell by around 7.3 per cent in 1994-95. The fall reflects the completion in 1993-94 of a number of large infrastructure projects, such as the Dawseville Cut south of Mandurah and the Northern Suburbs Rail Line. However, new infrastructure projects, such as the sewerage infill program and Collie power station, are likely to substantially boost expenditure in coming years.

External Sector

Western Australia's external sector continued to make a major contribution to economic growth in 1994-95.

The value of overseas exports from Western Australia increased further in 1994-95. Overseas imports are also estimated to increase in 1994-95, following a moderate fall in 1993-94. However, growth in the value of exports continued to exceed that in imports. As a consequence, net trade (ie exports less imports) made a substantial contribution to this State's economic performance.

Growth in the Western Australian economy in 1994-95 was significantly boosted by continued strong activity in the Asian region. Further strength in the world economic outlook for many of these economies should ensure that the external sector remains a significant contributor to the Western Australian economy.

The Western Australian Economy

Industry Analysis of Growth

The mining sector remains a major force behind Western Australia's economic growth. The value of mineral and energy production in Western Australia rose by 6.2 per cent to \$13.4 billion in 1994-95, around a quarter of the State's gross product. The rise was mainly attributable to the strong increase in production of natural gas, oil and nickel, with Liquefied Natural Gas (LNG) and mineral sands also being substantial contributors. By contrast, the value of production of Western Australia's top three mining and energy commodities - gold, iron ore and alumina - declined. Significantly, the composition of mineral resource production continues to diversify. Western Australia is a world leader in the production of industrial grade diamonds, alumina, iron ore and mineral sands, and now produces a significant proportion of the world's gold, nickel and liquefied natural gas.

The contribution from the manufacturing sector has also increased in recent years, rising from 10.6 per cent of GSP in 1993-94 to an estimated 11.0 per cent in 1994-95. The relative size of the services sector, which includes industries such as finance, construction, transport and communication and the public sector, has also increased. In recent years the manufacturing sector in Western Australia has focused more on production of a broad range of sophisticated niche activities. These include manufactures such as transport equipment, industrial machinery and electronics. The emergence of these activities has been facilitated by Western Australia's relatively low input costs and close proximity to the rapidly growing Asian markets. The agricultural sector has declined in prominence to an estimated 3.5 per cent of total activity in 1994-95.

The tourism industry is becoming increasingly important to Western Australia's economic growth and export earnings. Employment in the tourism and recreation industry has been growing steadily over the past five years at an average annual rate of around 4.6 per cent, the third highest growth of all industry sectors. Employment in tourism and recreational services expanded by a substantial 9.3 per cent in 1994-95.

*AGRICULTURE,
FORESTRY AND
FISHERIES*

Chapter 11

AGRICULTURE, FORESTRY AND FISHERIES

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AGRICULTURE, FORESTRY AND FISHERIES

Agriculture

Agricultural Statistics

The principal source of statistics relating to the agricultural sector is the Integrated Agricultural Commodity Census, which is conducted annually by the ABS. Units (establishments) included in the census are defined and classified in accordance with the Australian New Zealand Standard Industrial Classification (ANZSIC).

While no financial data is collected in the census, an 'Estimated Value of Agricultural Operations' (EVAO) is calculated for each establishment by applying unit values to reported production and/or stock data. This procedure enables establishments in the census to be classified according to industry (ANZSIC) and also according to size of operations.

Since 1976-77, small establishments have been excluded from the census, to reduce ABS processing costs. From 1976-77 to 1980-81, an EVAO cut-off of \$1,500 was used. The cut-off was raised to \$2,500 in 1981-82; raised to \$20,000 in 1986-87 and further raised to \$22,500 in 1990-91.

The effect of the pre-1986-87 cut-offs on statistics, other than counts of establishments, is minimal. The effect of the 1990-91 cut-off is also minimal. The \$20,000 cut-off applying from 1986-87 does have a significant effect on some items, and estimates of the under coverage are available from the ABS. From 1993-94 the cut-off has been reduced to \$5,000 and coverage improvements have been made.

Statistics on the financial performance of the agricultural sector are obtained from the Agricultural Finance Survey which has been conducted periodically by the ABS. This survey, which provides estimates of turnover, expenditure, cash operating surplus, capital expenditure and indebtedness, was recommenced on an annual basis from 1986-87. Detailed definitions and explanatory notes about the survey were published in the bulletin *Agricultural Industries, Financial Statistics, Australia 1986-87* (Catalogue No. 7507.0).

Agriculture, Forestry and Fisheries

Value Of Agricultural Commodities Produced

For agricultural production, the *gross value* is based on the wholesale price realised in the market place. Where commodities are consumed at the place of production or where they become raw material for secondary industry within the State, these points of consumption are taken as the *market places*.

The *local value* is the value at the place of production and is obtained by deducting marketing costs from the gross value. *Marketing costs* comprise freight, cost of containers, commission, and other charges incurred in marketing. Gross values provide a reliable measure of the value of production of any particular commodity or group but when comparing or combining values for agricultural industries with those for secondary industries, the value added series of financial statistics from the Agricultural Finance Survey should be used.

TABLE 11.1 - NUMBER OF ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY BY INDUSTRY AND ESTIMATED VALUE OF AGRICULTURAL OPERATIONS, 1993-94 (a)
Reference: Catalogue No. 7113.0

Industry of establishment		Estimated value of agricultural operations (\$)							Total
ANZSIC code	Description	Less than 5,000	5,000-22,499	22,500-49,999	50,000-99,999	100,000-199,999	200,000-499,999	500,000 and over	
0111	Plant nurseries	9	35	48	28	16	3	8	147
0112	Cut flower & flower seed growing	23	42	29	20	11	7	5	137
0113	Vegetable growing	6	73	101	116	125	5	55	563
0114	Grape growing	22	74	80	35	20	6	2	238
0115	Apple and pear growing	7	18	36	50	70	36	12	229
0116	Stone fruit growing	12	54	45	40	15	5	1	172
0117	Kiwi fruit growing	—	2	1	2	2	1	—	8
0119	Fruit growing n.e.c.	50	76	43	42	81	57	11	360
0121	Grain growing	7	30	78	166	530	1,496	847	3,154
0122	Grain-sheep/beef cattle farming	10	61	178	595	1,278	1,186	171	3,479
0123	Sheep-beef cattle farming	16	134	158	152	96	57	12	625
0124	Sheep farming	115	392	395	456	364	171	12	1,905
0125	Beef cattle farming	132	836	524	272	133	93	55	1,990
0130	Dairy cattle farming	2	11	16	40	156	270	33	528
0141	Poultry farming (meat)	1	2	3	5	25	23	6	65
0142	Poultry farming (eggs)	—	3	4	9	19	35	14	84
0151	Pig farming	4	22	14	25	36	37	20	158
0152	Horse farming	13	60	36	28	16	5	—	158
0153	Deer farming	—	1	10	9	13	8	6	47
0159	Livestock farming n.e.c.	8	18	26	18	9	11	23	113
0161	Sugar cane farming	—	—	—	—	—	—	—	—
0162	Cotton growing	—	—	—	—	—	—	—	—
0169	Crop and plant growing	16	6	9	3	6	2	4	46
01	Total agriculture	453	1,950	1,834	2,056	3,021	3,595	1,297	14,206
..	Other industries	23	46	24	19	21	12	2	147
..	Unclassified	202	—	—	—	—	—	—	202
..	Total all industries	677	1,997	1,858	2,075	3,042	3,607	1,299	14,555

(a) Due to a variety of reasons a number of establishments neither grew crops nor grazed livestock during the year ended 31 March 1994.

Agriculture in Western Australia

Wheat was the most important item in 1993-94 with a gross value of \$1,156.9 million, followed by wool with \$604.7 million. The total value of agricultural commodities produced rose slightly to \$3,365.1 million, an 8.0 per cent increase. Increases were recorded in the value of most commodities with total crops up 12.5 per cent from \$1,896.7 million to \$2,058.5 million. Livestock and livestock products rose by 7.4 per cent from \$1,217.8 million to \$1,306.6 million.

Agriculture, Forestry and Fisheries

**TABLE 11.2 - NUMBER OF ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY
BY INDUSTRY AND AREA OF ESTABLISHMENT, 1993-94 (a)**
Reference: Catalogue No. 7102.0

Industry of establishment ANZSIC code Description		Area of establishment (hectares)						Total
		0-49	50-499	500-2,499	2,500-9,999	10,000-49,999	50,000 and over	
0111	Plant Nurseries	130	12	4	—	—	1	147
0112	Cut flower & flower seed growing	97	32	8	—	—	—	137
0113	Vegetable growing	348	190	25	—	—	—	563
0114	Grape growing	180	55	3	—	—	—	238
0115	Apple and pear growing	142	82	5	—	—	—	229
0116	Stone fruit growing	146	25	1	—	—	—	172
0117	Kiwi fruit growing	5	3	—	—	—	—	8
0119	Fruit growing n.e.c.	306	50	4	—	—	—	360
0121	Grain growing	5	150	1,619	1,346	34	—	3,154
0122	Grain-sheep/beef cattle farming	6	271	2,496	682	20	4	3,479
0123	Sheep-beef cattle farming	15	277	267	32	2	32	625
0124	Sheep farming	72	622	879	100	20	212	1,905
0125	Beef cattle farming	197	1,339	259	33	4	158	1,990
0130	Dairy cattle farming	20	428	78	2	—	—	528
0141	Poultry farming (meat)	59	6	—	—	—	—	65
0142	Poultry farming (eggs)	67	15	2	—	—	—	84
0151	Pig farming	38	70	46	3	1	—	158
0152	Horse farming	63	90	5	—	—	—	158
0153	Deer farming	17	25	5	—	—	—	47
0159	Livestock farming n.e.c.	69	25	13	5	—	1	113
0161	Sugar cane farming	—	—	—	—	—	—	—
0162	Cotton growing	—	—	—	—	—	—	—
0169	Crop and plant growing n.e.c.	16	17	11	1	—	1	46
01	Total agriculture	1,998	3,784	5,730	2,204	81	409	14,206
..	Other industries	51	58	29	4	2	3	147
..	Unclassified	94	73	24	5	1	5	202
..	Total all industries	2,143	3,915	5,783	2,213	84	417	14,555

(a) Due to a variety of reasons a number of establishments neither grew crops nor grazed livestock during the year ended 31 March 1994.

**TABLE 11.3 - FINANCIAL STATISTICS, AGRICULTURAL
ENTERPRISES**
(\$ million)

Reference: Catalogue No. 7507.0

	1991-92	1992-93	1993-94
Sales of crops	1,353.5	1,577.7	1,738.0
Sales of livestock	343.0	462.8	577.1
Sales of livestock products	737.8	690.8	725.6
Turnover	2,560.3	2,875.8	3,180.9
Purchases and selected expenses	1,620.3	1,710.5	1,885.7
Value added	1,193.5	1,188.9	1,706.6
Adjusted value added	1,000.5	1,006.4	1,514.1
Gross operating surplus	802.6	801.2	1,279.2
Total interest paid	215.9	190.8	178.7
Cash operating surplus	353.2	618.5	720.3
Total net capital expenditure	230.1	279.3	360.7
Gross indebtedness	1,919.7	2,192.5	2,459.3
Number of enterprises	11,346	11,136	10,971

TABLE 11.4 – GROSS VALUES, MARKETING COSTS AND LOCAL VALUES OF AGRICULTURAL COMMODITIES
(\$ million)

Reference: Catalogue No. 7503.0

	1991-92	1992-93	1993-94
Crops and pastures—			
Gross value of production	1,463.0	1,896.7	2,058.5
Marketing costs	196.9	267.5	285.3
Local value of production	1,266.1	1,629.2	1,773.2
Livestock slaughterings and other disposals—			
Gross value of production	423.9	466.2	545.7
Marketing costs	45.3	41.5	55.8
Local value of production	378.6	424.7	489.9
Livestock products—			
Gross value of production	745.5	751.8	760.9
Marketing costs	33.0	37.3	37.7
Local value of production	712.5	714.5	723.2
Total agriculture—			
Gross value of production	2,632.4	3,114.8	3,365.1
Marketing costs	275.2	346.4	378.8
Local value of production	2,357.2	2,768.4	2,986.3

Land Use On Agricultural Establishments

Due in part to the effects of the lowering of the EVAO cut-off, the number of agricultural establishments rose from 13,128 in 1992-93, to 14,555 in 1993-94. They comprised 114.4 million hectares of land, or about 45.5 per cent of the total area of Western Australia.

Of the total area of these establishments, 6.1 million hectares were used for crops and 7.3 million hectares were under sown pasture and grasses. The balance consisted mainly of uncleared land (most of which was pastoral leases held by sheep and cattle stations) but it also included cleared land which was used for grazing or which

TABLE 11.5 – LAND USE IN EACH STATISTICAL DIVISION, 1993-94

Reference: Catalogue No. 7113.5

Statistical division	Agricultural establishments (number)	Land use during the season ('000 hectares)			Total area of establishments ('000 hectares)
		Used for crops	Under sown pastures	Lucerne (all purposes)	
Perth	1,385	7.5	41.4	0.1	95.6
South-West	2,930	46.4	574.4	0.6	952.7
Lower Great Southern	2,560	641.1	1,665.8	1.7	2,884.4
Upper Great Southern	1,897	1,166.6	1,521.0	0.1	3,388.9
Midlands	3,294	2,640.9	1,760.3	0.1	7,119.5
South-Eastern	764	467.7	957.5	1.0	17,267.4
Central	1,466	1,124.1	749.3	1.0	42,606.8
Pilbara	61	—	—	—	14,990.4
Kimberley	198	6.1	39.3	—	25,138.3
Total	14,555	6,100.2	7,309.1	3.7	114,444.1

was resting during the season, fallowed areas and newly cleared land.

Table 11.5 gives details of rural land use according to statistical division for 1993-94. Maps showing the boundaries of the statistical divisions and their component statistical local areas are located in the Appendix.

Crops and Pastures

Wheat

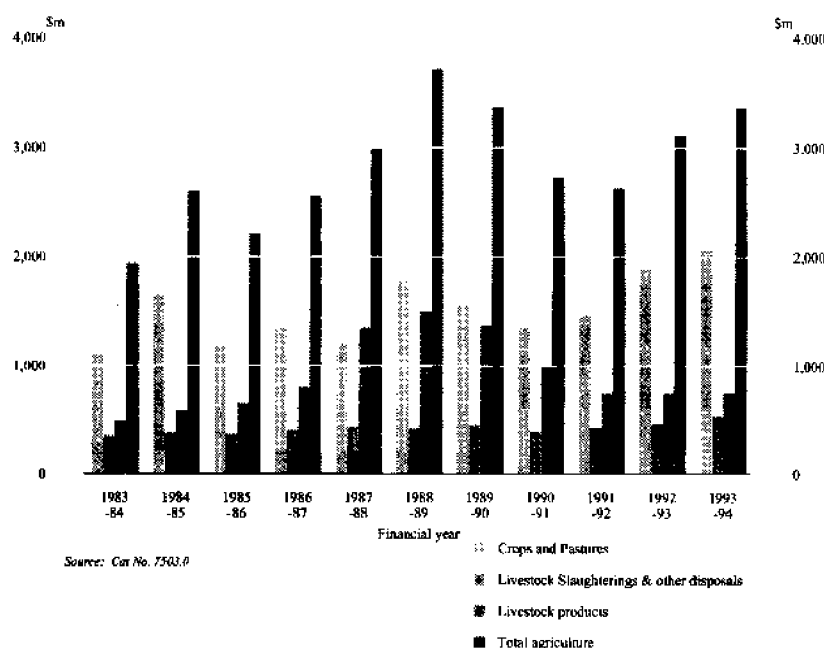
Wheat plantings in 1993-94 were 3,852,000 hectares, an increase of 5.0 per cent over the previous year. This was the seventh consecutive crop of under 4 million hectares following crops in excess of 4 million hectares for each year between 1979 and 1986. The state total harvest for 1993-94 of 6,689,000 tonnes was 11.9 per cent greater than in the previous financial year. The latest harvest represented a state yield of 1.73 tonnes per hectare, a new record well above the previous record of 1.63 tonnes per hectare set the previous year. This continues the recent trend of yields well above the 20 year average yield of 1.16 tonnes per hectare. The record yield was largely the result of favourable growing conditions throughout the wheat-belt.

**TABLE 11.6 - CEREAL CROPS FOR GRAIN
AREA AND PRODUCTION**

Reference: Catalogue No. 7113.5, 7503.5

	Unit	1991-92	1992-93	1993-94
Wheat				
Area	'000 ha	3,230	3,669	3,852
Production—				
Total	'000 t	4,736	5,979	6,689
Per hectare	tonnes	1.47	1.63	1.73
Gross value	\$'000	950,333	1,083,800	1,156,898
Oats				
Area	'000 ha	367	332	268
Production—				
Total	'000 t	614	578	511
Per hectare	tonnes	1.67	1.74	1.90
Gross value	\$'000	60,864	72,908	45,105
Barley				
Area	'000 ha	554	611	799
Production—				
Total	'000 t	900	1,061	1,381
Per hectare	tonnes	1.62	1.74	1.73
Gross value	\$'000	133,146	168,319	172,268
Lupins				
Area	'000 ha	787	823	929
Production—				
Total	'000 t	874	826	1,181
Per hectare	tonnes	1.11	1.00	1.27
Gross value	\$'000	148,166	162,899	209,102

DIAGRAM 11.1
GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED, WESTERN AUSTRALIA
1983-84 to 1993-94



Oats

Plantings of oats for grain in 1993-94 covered 268,500 hectares, a decrease of 19.1 per cent on the previous year. However, State production decreased by only 11.6 per cent to 511,000 tonnes as the yield reached a record 1.90 tonnes per hectare. The previous record of 1.74 tonnes per hectare had only been set in 1992-93. The improved yield was largely attributed to the good rains, especially in June and July, soon after planting in most growing areas.

Barley

In 1993-94, barley plantings increased by 30.8 per cent over the previous year to reach 799,000 hectares. This was the largest area planted to barley since 1985-86 when the crop amounted to 824,000 hectares. Production increased 30.2 per cent to 1,381,000 tonnes, representing a state average yield of 1.73 tonnes per hectare, down from record 1.74 tonnes per hectares of 1992-93. Favourable timing of rains after planting and generally good growing conditions have contributed to this yield. Recent yields have comfortably exceeded the 20 year average of 1.28 tonnes per hectare.

Lupins

In 1993-94, lupin plantings increased to 929,000 hectares, an increase of 12.9 per cent on the previous year. This was the highest area on record, exceeding the 876,000 hectares planted in 1987-88. However, production rose by 43.0 per cent to 1,181,000 tonnes leading to an increase in the State average yield from a record 1.11 tonnes per hectare in 1991-92 to 1.27 tonnes per

hectare in 1993-94. This latest yield was well above the 20 year average of 0.98 tonnes per hectare. The increased yield could be attributed to the same factors in the season which led to good yields in cereal crops.

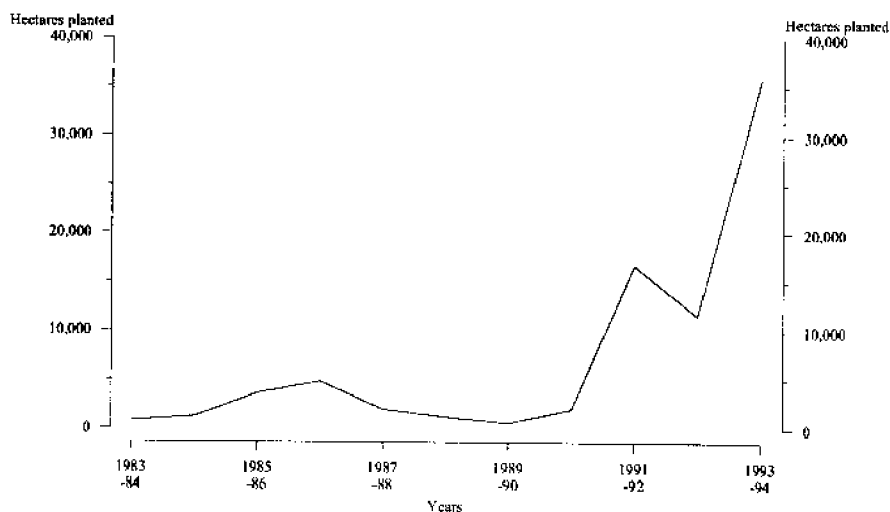
Other Grains and Oilseeds

Plantings of Canola (rapeseed) in 1993-94 rose above the 1991-92 record of 16,702 hectares to a new record of 35,844 hectares. This represented an increase of 208.6 per cent. The increases appeared to be the result of increased numbers of farmers electing to plant the crop, possibly due to good commodity prices and a lack of competition from U.S and Canadian farmers. Production was 47,312 tonnes representing a yield of 1.32 tonnes per hectare.

Triticale, a wheat/rye cross, was first recorded in the Agricultural Census in 1978-79, and since then plantings increased each year until 1984-85 when a record 39,000 hectares were sown. Area planted in the 1993-94 season was 19,484 hectares, an increase of 19.7 per cent on the 1992-93 figure of 16,281 hectares. Production, however, was 22,026 tonnes, an improvement of 31.9 per cent. This represented a yield of 1.13 tonnes per hectare compared to the 1.10 tonnes per hectare of the previous season.

Significant increases in the planting of field peas have occurred over the past decade. However, in 1993-94 plantings only rose to 33,701 hectares, an increase of 4.1 per cent over the previous season. Grain sorghum, linseed, rye, vetches, safflower and sunflower were also grown in small quantities.

DIAGRAM 11.2
THE EMERGENCE OF CANOLA IN WESTERN AUSTRALIA
1983-84 TO 1993-94



Source: Cat No. 7113.5

Hay

Large quantities of pasture hay were cut from clover and grass pastures, production in 1993-94 being 427,000 tonnes from 111,000 hectares. The principal cereal hay crop was oats and 345,500 tonnes of oaten hay were cut in 1993-94 from 77,600 hectares.

TABLE 11.7 - HAY: AREA AND PRODUCTION

Reference: Catalogue No. 7113.5

	Unit	1991-92	1992-93	1993-94
Pasture (a)—				
Area	'000 ha	116	104	111
Production	'000 t	423	368	427
Crop (b)—				
Area	'000 ha	122	93	88
Production	'000 t	476	394	385

(a) Includes lucerne. (b) Principally from oats and wheat.

Pastures

Of the 8.4 million hectares of improved pastures in the State, the majority are sown to the legume subterranean clover. Other species in use include medic, rose clover, serradella, lucerne and a variety of grasses, principally Wimmera ryegrass.

Sown pastures and grasses amounted to 7.3 million hectares in 1993-94, a reduction of around 100,000 hectares or 1.4 per cent over the previous season.

A history of the evolution of broadacre cropping can be found in previous issues of the Western Australian Year Book.

Vegetables

In 1993-94, total vegetable plantings increased by 0.8 per cent over the previous year to reach 9,674 hectares, despite decreases in some of the more significant crops. Potato plantings accounted for 28.1 per cent of the vegetable area, covering 2,720 hectares — an increase of 3.0 per cent over the previous year. Potato production rose by 3.3 per cent to 111,813 tonnes due to marginally increased yields. The area for growing onions increased by 17.4 per cent to 377 hectares as a result of slightly higher market prices. However, production rose by 18.7 per cent as yields improved. Whilst the area for growing green peas for processing remained relatively static at 1,112 hectares (up only 7.5 per cent), production rose by 68.3 per cent to 2,836 tonnes.

Significant increases in area and production occurred for celery, carrots and broccoli. However, while lettuce area increased by 8.2 per cent to 408 hectares, production fell by 9.0 per cent from 17,451 tonnes to 15,878 tonnes. Rockmelons and watermelons declined in both area and production. The increase in carrot production was 17.3 per cent on the previous year from 36,439 tonnes to 42,757 tonnes while broccoli production increased from 2,994 tonnes in 1992-93 to 3,208 tonnes in 1993-94. Of the smaller root crop plantings, parsnips showed greater grower interest with increased plantings of 140.0 per cent and increased production of 181.3 per cent.

**TABLE 11.8 - PRINCIPAL VEGETABLES
AREA, PRODUCTION AND GROSS VALUE**
Reference: Catalogue No. 7113.5, 7503.5

	Unit	1991-92	1992-93	1993-94
Carrots—				
Area	hectares	706	715	814
Production	tonnes	31,040	36,439	42,757
Gross value	\$'000	15,144	20,049	23,804
Cauliflowers—				
Area	hectares	773	899	903
Production	tonnes	15,204	14,656	14,066
Gross value	\$'000	14,354	15,472	15,318
Lettuce—				
Area	hectares	389	377	408
Production	tonnes	17,971	17,451	15,878
Gross value	\$'000	8,346	8,293	5,545
Onions—				
Area	hectares	436	321	377
Production	tonnes	22,299	18,936	22,480
Gross value	\$'000	6,655	5,675	5,972
Potatoes—				
Area	hectares	2,614	2,640	2,720
Production	tonnes	97,817	108,171	111,813
Gross value	\$'000	33,170	34,635	33,798
Tomatoes—				
Area	hectares	219	247	225
Production	tonnes	7,587	8,385	8,194
Gross value	\$'000	8,426	8,933	8,415
All vegetables—				
Area	hectares	9,248	9,594	9,674
Gross value	\$'000	131,137	139,926	138,958

For a detailed history of vegetable growing in Western Australia, including background on areas predominantly involved, please refer to previous editions of the Western Australian Yearbook.

Fruit

Apples and pears

In 1993-94, the number of apple trees recorded in the Census was 1,009,296, an increase of 31.1 per cent over the previous season. Granny Smiths accounted for 53.4 per cent of the total 44,579 tonnes of apples produced. However, production of the newer varieties of apples such as Gala (up 41.2 per cent), Pink Lady (up 96.4 per cent) and Sundowner (up 48.6 per cent) increased significantly compared to the 1992-93 season. Other more established varieties to show increases included Lady Williams (up 40.0 per cent) and Jonathons (up 88.0 per cent). The total increase in apple production was 22.0 per cent with much of this increase being attributable to young trees reaching bearing age.

Pears are usually grown in conjunction with apples, and although apples are still considerably more important, pear tree numbers have increased by over 50 per cent in the last ten years. Pear tree numbers rose to 214,488 in the 1993-94 season. This represented an increase of 11.6 per cent compared to the previous season. Nashi pear plantings have become the predominant variety rising to 35,485 trees, or 18.5 per cent of total pear trees.

TABLE 11.9 - FRUIT: AREA AND GROSS VALUE OF PRODUCTION

Reference: Catalogue No. 7113.5

	Unit	1991-92	1992-93	1993-94
Area—				
Orchard fruit	ha	5,110	5,687	6,049
Plantation and berry fruit	"	657	783	838
Grapes	"	2,199	2,515	2,713
Total	"	7,966	8,985	9,600
Gross value of production—				
Orchard fruit	\$'000	44,984	45,984	62,272
Plantation and berry fruit	"	34,731	37,076	29,481
Grapes	"	11,919	14,205	17,637
Total	"	91,634	97,265	109,390

Citrus fruit

Oranges remained the dominant citrus fruit in 1993-94. Production of oranges for the season decreased by 3.4 per cent to 6,295 tonnes, down from 6,519 tonnes the previous year whilst the number of trees capable of commercial crop production rose by 16.1 per cent and total orange tree numbers rose by 16.9 per cent. Production of lemons and limes increased by 3.9 per cent to 1,240 tonnes. The number of mandarin trees increased by 27.3 per cent to 83,900 trees while an increase in production of 13.1 per cent saw 1,524 tonnes produced. Grapefruit production fell 5.5 per cent to 564 tonnes despite a 12.9 per cent increase in the number of mature trees. These falls in production have largely been blamed on poor rainfall during the growing season.

**TABLE 11.10 - ORCHARD FRUIT: TOTAL NUMBER OF TREES,
PRODUCTION AND GROSS VALUE**
References: Catalogue Nos. 7113.5, 7503.0

	Unit	1991-92	1992-93	1993-94
Apples—				
Trees	'000	778	770	1,009
Production	tonnes	37,418	36,551	44,579
Gross value	\$'000	19,497	17,756	32,142
Pears—				
Trees	'000	175	192	214
Production	tonnes	8,399	8,311	8,868
Gross value	\$'000	4,997	5,596	6,239
Lemons and limes—				
Trees	'000	18	19	20
Production	tonnes	1,125	1,191	1,240
Gross value	\$'000	738	833	819
Mandarins—				
Trees	'000	55	66	84
Production	tonnes	1,315	1,348	1,524
Gross value	\$'000	1,830	1,083	2,049
Oranges—				
Trees	'000	183	190	222
Production	tonnes	5,304	6,519	6,295
Gross value	\$'000	1,830	1,882	2,733
Nectarines—				
Trees	'000	147	168	188
Production	tonnes	2,333	2,225	2,002
Gross value	\$'000	2,333	2,769	4,250
Peaches—				
Trees	'000	126	150	160
Production	tonnes	2,507	2,145	2,239
Gross value	\$'000	4,070	3,881	2,780
Plums and prunes—				
Trees	'000	190	218	243
Production	tonnes	3,494	3,563	3,414
Gross value	\$'000	4,392	5,090	3,892

Stone fruits

Stone fruits are grown mainly in the hills districts in the Darling Ranges near Perth, and in the Shires of Manjimup and Donnybrook-Balingup in the south-west of the State; however some stone fruits are grown in many other districts of the south-west.

Total volume of stone fruit production rose only moderately in 1993-94 with many types of stone fruit recording significant decreases. Production of avocados fell 7.5 per cent to 859 tonnes from the previous season's 929 tonnes. This was despite a 0.7 per cent increase in the number of avocado trees aged over six years. Nectarine production fell again in 1993-94; down a further 10.0 per cent to 2,002 tonnes. This decline has been attributed, in part, to poor weather conditions in the growing areas and to a decrease of 5,300 (or 7.9 per cent) in the number of mature nectarine trees. The trend of increasing plum production evident since 1988-89

ceased with production falling from 3,563 tonnes to 3,414 tonnes, a fall of 4.2 per cent. Apricot production also decreased during 1993-94 but peach production rose as mature tree numbers increased by 6.0 per cent. Mango production rose by 42.5 per cent as market prices were favourable and mature tree numbers increased by 29.9 per cent to 17,600 trees.

Vineyards

In 1993-94, the total area of plantings for grapes were 2,713 hectares - an increase of 7.9 per cent on the previous year's plantings of 2,515 hectares. The area of red grapes planted was 1,331 hectares producing 7,988 tonnes. White grapes produced 8,790 tonnes from 1,382 hectares. Winemaking production increased by 27.5 per cent to 12,959 tonnes while production of grapes for drying decreased by 6.4 per cent to 1,261 tonnes. Table and other production rose by 14.6 per cent to 2,561 tonnes.

TABLE 11.11 - GRAPES: AREA AND PRODUCTION

Reference: Catalogue No. 7113.5

	Unit	1991-92	1992-93	1993-94
Area of vines—				
Bearing	ha	1,919	2,261	2,435
Not yet bearing	"	280	254	278
Grapes for wine making and table use—				
Quantity	tonnes	9,763	12,397	15,520
Gross value	\$'000	11,196	13,050	16,985
Grapes for drying—				
Quantity	tonnes	839	1,347	1,261
Gross value	\$'000	722	1,155	648

Other fruit

Banana production continued to increase during 1993-94, with a 2.8 per cent rise in production to 18,603 tonnes. The average yield per bearing hectare fell from the record set the previous year (of 41.3 tonnes per hectare), to 34.1 tonnes per hectare. The total area of bananas rose to 625 hectares, with bearing area increasing to 545 hectares. Strawberry production increased by 33.3 per cent to 2,288 tonnes following the brief fall in 1992-93 and surpassing the record 1991-92 crop of 2,257 tonnes. Bearing area rose by 19.6 per cent to 122 hectares. The total area of strawberries decreased by 5.5 per cent to 137 hectares. The average yield per hectare rose to 18.8 tonnes per hectare. Nearly 90 per cent of the area planted is within the Perth Statistical Division.

Nurseries

Nurseries and the Nursery industry were the subject of a new National collection during 1992-93. This detailed collection was sponsored by the Nursery Industry Association of Australia (NIAA) for a three year period and collected additional data on labour and other operating costs associated with the operation of nursery businesses. For 1993-94, department stores operating nursery sections were included. Extensive data from the 1992-93 collection is available on request from all ABS offices along with preliminary results from the 1993-94 collection.

TABLE 11.12 – NURSERIES (a)
AREA AND GROSS VALUE
Reference: Catalogue Nos. 7113.5, 7503.5

	Unit	1991-92	1992-93	1993-94
Area	hectares	1,541	1,987	2,063
Gross value	\$'000	45,001	62,359	79,114

(a) Including cut flowers and cultivated turf.

Artificial fertiliser

Fertiliser usage rose from 797,000 tonnes in 1992-93 to 866,000 tonnes during 1993-94. A smaller increase in the area to which fertilisers were applied was also recorded, rising from 7,455,000 hectares to 7,557,000 hectares, pointing to increased application rates.

The area treated by soil conditioners increased by 24 per cent to 188,000 hectares. A total of 194,700 tonnes of soil conditioners including lime, gypsum and dolomite, were applied.

TABLE 11.13 – ARTIFICIAL FERTILISER USED ON RURAL HOLDINGS

Reference: Catalogue No. 7113.5

	Unit	1991-92	1992-93	1993-94
Artificial fertiliser used—				
Area fertilised	'000 ha	7,284	7,455	7,557
Quantity used	'000 t	767	797	866
Soil conditioners—				
Area treated	'000 ha	262	152	188
Quantity used	'000 t	(a)	154	195

(a) Not collected

Livestock

Sheep

Sheep numbers continued to decrease during 1993-94 by 3.1 per cent to a total of 32.0 million at the end of March 1994. This followed a 3.2 per cent decrease in the previous year.

Total slaughterings to June 1994 fell 13.9 per cent over the previous year. The total number of sheep and lambs slaughtered fell to 4.505 million, this fall mainly due to a 21.3 per cent reduction in sheep slaughterings. Lamb slaughterings actually increased by 4.9 per cent. The gross value of sheep and lambs slaughtered also increased to \$185.3 million, a rise of 25.8 per cent over the previous year.

Cattle

Cattle statistics are classified according to the two broad categories of 'meat production' and 'milk production', regardless of breed. At 31 March 1994, meat cattle comprised over 93 per cent of the State's cattle herd.

At 31 March 1994, the State meat cattle herd was 1,682,500, a rise of 9.8 per cent on the previous season. After reaching a peak of 2,500,000 head in 1976, meat cattle numbers declined by 35 per cent over the ensuing nine years. Since 1985 meat cattle numbers have been relatively stable at about 1,500,000 prior to this years' more substantial rise.

TABLE 11.14 - LIVESTOCK NUMBERS AT 31 MARCH
(^{'000})

Reference : Catalogue No. 7113.5

	1992	1993	1994
Meat cattle	1,536.3	1,532.0	1,682.5
Milk cattle (excludes house cows)	112.8	116.2	123.0
Sheep & Lambs	34,060.5	32,964.8	31,951.5
Pigs	317.8	305.3	311.6
Poultry	5,140.7	6,496.7	6,001.8

Wool

The National Council of Wool Selling Brokers has estimated the 1993-94 wool clip at 209,760 tonnes representing a 4.2 per cent increase over the previous year's 204,240. The 1989-90 clip of 236,079 tonnes remains the highest on record and falling sheep and lamb numbers mean it is unlikely to be exceeded in the foreseeable future.

TABLE 11.15 - SHEEP NUMBERS AND DISTRIBUTION AT 31 MARCH

Reference: Catalogue No. 7113.5

Year	In agricultural areas		In pastoral areas		Number
	Number	Proportion of State total	Number	Proportion of State total	
	'000	per cent	'000	per cent	'000
1960	13,396	81.6	3,016	18.4	16,412
1970	29,844	88.7	3,790	11.3	33,634
1980	28,730	94.4	1,701	5.6	30,431
1990	35,924	93.5	2,498	6.5	38,422
1991	33,934	93.2	2,456	6.7	36,390
1992	31,782	93.3	2,279	6.7	34,060
1993	30,741	93.2	2,224	6.8	32,965
1994	29,630	92.7	2,322	7.3	31,952

Slaughtering

Slaughterings of cattle and calves in the year to June 1994 fell by 3.1 per cent to 443,000. This followed a 6.0 per cent increase the previous year. Beef and veal produced rose slightly despite the fall in slaughterings to 101,809 tonnes. The value of cattle and calves slaughtered also increased 16.6 per cent to \$217.6 million.

**TABLE 11.16 - SHEEP SHORN AND WOOL PRODUCTION
AT 30 JUNE (a)**
Reference: Catalogue No. 7113.5

	Unit	1991-92	1992-93	1993-94
Sheep shorn	'000	33,459	35,620	37,353
Lambs shorn	"	5,648	7,870	7,906
Total	"	39,107	43,490	45,259
Average weight of wool shorn	kg	4.65	4.63	4.64
Wool production (greasy)—				
Shorn	'000 t	182	204	210
Dead, fellmongered, exported on skins	"	4	4	3
Total	"	186	208	213

(a) Data supplied by the National Council of Wool Selling Brokers.

TABLE 11.17 - LIVESTOCK SLAUGHTERED AND MEAT PRODUCED
Reference: Catalogue Nos. 7113.5, 7503.5

	Unit	1991-92	1992-93	1993-94
Livestock slaughtered (a)—				
Sheep and lambs	'000	4,255	5,233	4,505
Gross value (b)	\$'000	115,485	147,208	185,268
Cattle and calves	'000	431	457	443
Gross value (b)	\$'000	179,628	186,664	217,605
Pigs	'000	526	568	550
Gross value (b)	\$'000	61,923	64,149	68,637
Meat produced (c)—				
Mutton and lamb	tonnes	79,970	100,316	86,667
Beef and veal	"	91,804	100,499	101,809
Pigmeat produced (c)(d)	"	30,967	33,562	32,423

(a) Mainly slaughterings for human consumption but also includes quantities condemned and small numbers of livestock slaughtered for boiling down.
(b) Value on hoof at principal market. (c) Dressed carcass weight; excludes condemned carcasses and offal. (d) Includes quantities used to produce ham.

Dairying

The bulk of the State's dairy cattle are concentrated in the high rainfall, near-coastal strip from Pinjarra to Augusta, with lesser numbers being found further east to Albany. Irrigation of pastures, during the drier summer months, plays an important role in the industry.

The milk cattle herd at March 1994 numbered 123,026 - a 5.8 per cent increase over the previous year. Milk production for 1993-94 rose 6.5 per cent to 344 million litres. This is the fourth consecutive year of increased milk production, contributing to a 25 per cent rise in production since 1989.

TABLE 11.18 - WHOLE MILK PRODUCTION (a)
Reference: Catalogue No. 7221.5

	Unit	1991-92	1992-93	1993-94
Quantity	million L	302	324	344
Gross value	\$'000	104,067	114,044	121,200

(a) Includes milk used for processing.

Pig raising

Intensive piggeries have assumed greater importance in recent years, and there has been a reduction in the number of pigs being raised in small or 'mixed farm' operations. The State's pig population in March 1994 stood at 311,600, a rise of 2.1 per cent on the previous year. Slaughterings fell 3.4 per cent in the year to June 1994, reflecting the lower market prices.

**TABLE 11.19 - EGG PRODUCTION AND POULTRY
SLAUGHTERED FOR TABLE PURPOSES**
YEAR ENDED 30 JUNE
Reference : Catalogue No. 7221.5

	Unit	1991-92	1992-93	1993-94
Egg production—				
Quantity (a)	'000 dozen	18,059	18,845	19,684
Gross value	\$'000	30,305	30,370	32,383
Poultry slaughtered for table purposes—				
Dressed weight	tonnes	37,526	37,740	39,399
Gross value	\$'000	61,028	67,977	71,784

(a) Source: Western Australian Egg Marketing Board.

Poultry farming

Poultry numbers have risen significantly with a total number of 6,001,800 for 1993-94. The number of turkeys rose by 19.0 per cent to 28,600 in 1993-94. Egg production increased slightly with 19,684 dozen eggs produced during 1993-94. Poultry slaughtered tonnage increased by 4.4 per cent, to 39,386 tonnes.

**TABLE 11.20 - BEEHIVES AND PRODUCTION OF HONEY AND
BEESWAX**
Reference: Catalogue No. 7113.5

	Unit	1991-92	1992-93	1993-94
Beehives—				
Productive	'000	22	20	22
Unproductive	"	6	5	7
Honey production	tonnes	2,264	2,039	2,172
Beeswax production	"	38	38	47

Beekeeping

The number of productive hives increased from 19,704 in 1992-93 to 21,792 in 1993-94. Honey production rose to 2,172 tonnes an increase of 6.5 per cent. An extensive review of the methods of collecting beekeeping statistics is currently underway which could result in the collection of production data directly from honey packers rather than beekeepers. Initially, the two collections may run concurrently to evaluate their relative accuracy.

Forestry

**TABLE 11.21 - LOG PRODUCTION FROM CROWN LAND
AND PRIVATE PROPERTY
1993-94
(cubic metres)**

<i>Type</i>	<i>Crown Land</i>	<i>Private Property</i>	<i>Total</i>
Sawlog Timber (a)—			
Hardwood—			
Jarrah	423,386	5,047	428,433
Karri	241,109	6,144	247,253
Marri	20,406	1,966	22,372
Blackbutt	1,130	139	1,269
Wandoo	594	288	882
Sheoak	1,582	63	1,645
Other	507	68	575
Total Hardwood	688,714	13,715	702,429
Pine	185,541	38,534	224,075
Total Sawlogs	874,255	52,249	926,504
Other log material (b)—			
Hardwood (c)	572,418	75,224	647,642
Softwood	323,846	76,685	400,531
TOTAL LOG TIMBER	1,770,519	210,216	1,974,677

(a) Sawlog timber from all sources, including veneer, but excluding chiplogs, firewood, piles and poles. Includes sawlogs and logs used in the production of plywood veneer. (b) Includes chiplogs, pine particle board material, pine rounds and pine industrial (MDF) material. (c) Hardwood residue includes 2,291 cubic metres of marri particle board/industrial wood and 67 cubic metres of jarrah industrial wood from private property.

Source: CALM Annual Report 1993-94

Forest Production

Forest production in Western Australia falls into three broad categories: Hardwoods, Total Sawlogs and Total Log Timber. Of the hardwoods, jarrah and karri remain the dominant species, amounting to some 675,686 cubic metres. This equates to 96.2 per cent of total hardwood production or 34.2 per cent of total log timber production in the State during 1993-94. Total log timber production for 1993-94 rose by 5.0 per cent from 1,881,517 to 1,974,677 cubic metres. Total hardwood production rose by 11.2 per cent to 926,504 cubic metres whilst pine production increased by 49.9 per cent from 149,487 cubic metres to 224,075 cubic metres.

Total sawlogs increased from 781,440 cubic metres to 926,504 cubic metres.

Further detail on the history and current management of the State's forests can be found in previous editions of the Western Australian Yearbook or the Department Conservation and Land Management.

Fisheries

Following a review of the collection and dissemination of fisheries statistics in late 1993, it was decided that the Australian Bureau of Agricultural Research Economics (ABARE), with assistance from State Fisheries Departments, would become the principal collector of this data. This year finds the collection in transition and, at the time of going to print, no data was available.

A detailed history and background to the fishing industry, as well as historical statistics can be found in previous editions of the Western Australian Yearbook.

References

ABS Publications

Agricultural Industries, Financial Statistics, Australia (7507.0)

Agriculture, Western Australia (7113.5)

Value of Agricultural Commodities Produced, Western Australia (7503.5)

Other Publications

Annual Report. Department of Conservation and Land Management.

Annual Report. Western Australian Department of Agriculture.

*MINING, ENERGY
AND WATER*

Chapter 12

MINING, ENERGY AND WATER RESOURCES

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Chapter 12

MINING, ENERGY AND WATER RESOURCES

Mining

Historical Perspective

In 1861, an expedition led by Assistant Surveyor Francis Thomas Gregory (1821-1888) noted rich iron ore deposits in the Pilbara region. These findings were ignored and dismissal of the deposits were expressed by Harvey Page Woodward, government geologist, who wrote in 1898 "there is enough iron ore to supply the whole world should present supplies run out ... but as iron ores are of no value it is useless to trouble about them".

In 1938, the Japanese showed interest in buying Western Australian iron ore from Koolan Island. The onset of World War II saw the government cease exports of iron ore and this embargo remained until December 1960.

In 1952, mining entrepreneur Lang Hancock discovered large iron ore deposits which led to the founding of Mt. Tom Price in September 1962. Stan Hilditch, a prospector, also discovered a massive high grade deposit at Mt. Whaleback in 1957. In 1962, 55 million tonnes of high grade iron ore was found in the Mt. Goldsworthy deposit. The towns of Tom Price, Newman, Pannawonica and Goldsworthy were established as a result of these discoveries.

Today, the Pilbara region is one of the world's greatest mineral producing areas. Currently the region produces approximately \$6 billion worth of minerals per annum. The principal commodities are iron ore, natural gas, petroleum, gold and solar salt.

Thirty years ago the Pilbara was sparsely populated with less than 5,000 people spread over an area of 510,000 square kilometres. Since mining first began, the region has experienced a tenfold increase in population and substantial infrastructure growth.

Radical changes in labour relations and greater efficiencies have made the major industries of the Pilbara extremely cost effective. Workplace agreements, enterprise bargaining and multi skilling have reduced labour costs and dramatically transformed the region's industrial relations landscape.

The improved industrial climate and the close proximity to the lucrative Asian markets have been crucial factors affecting the economy of the region. The Pilbara region is able to offer minerals competitively and efficiently. The shipping cost of iron ore from South America to East Asia is approximately \$US40 per tonne compared to \$US10 per tonne from the Pilbara. Timeliness is also an advantage, with a sailing time from the Pilbara to the Asian ports of approximately two weeks.

An incentive for potential investors in the Pilbara is the current land price which is estimated to be approximately \$1,600/ha as compared with \$100,000/ha at Kwinana, south of Perth.

Overall, the low cost of energy, quality raw materials and industrial land together with an excellent industrial relations climate have established the Pilbara as one of the most viable and competitive industrial locations in the Asia Pacific region.

Metallic Minerals

Despite a decline in production in 1994, Western Australia remains the world's fourth largest gold producer. A decrease in demand resulted in a drop in gold prices and adverse weather conditions on the Golden Mile curtailed industry activity during 1994-95. The value of gold production in 1994 for the State was \$3.3 billion. Western Australia produced 192 tonnes of gold which represented 74 per cent of the nation's total gold production (Source: Department of Minerals and Energy). Gold is the highest value mineral commodity produced in Australia.

Large-scale, state-of-the-art open cut and underground bulk mining techniques have replaced the previously high cost, labour-intensive operations along the Golden Mile. The Mt Charlotte underground operation and the Fimiston Open Pits will gradually be merged to form one Super Pit, final dimensions being 4.2km long, 2km wide and 450m deep. Environmental considerations have resulted in the construction of an overland covered conveyor to transport the ore to the processing plant, thus reducing dust and noise pollution.

As the industry continues to mature, Western Australia is recognised as a world leader in advances in technology and mining industry innovation with locally developed expertise keenly sought-after. One such innovation is the world's first commercial use of bacterial oxidation in refining gold ore. Specially-bred bacteria eat the sulphides in the gold ore and convert the ore to an oxide. The oxide ore is then treated by conventional cyanidation. This process was adapted by a Western Australian company especially for Australia's harsh conditions.

Gold Corporation

Gold Corporation operates the Perth Mint which receives gold bars from 50 mines across Australia. The Mint stores the bars until the mining companies are ready to export to bullion banks.

Gold Corporation is internationally known for its manufacture and marketing of gold, silver and platinum bullion coinage. The bullion coins are an alternative to bullion bars for investors and are sold by weight at small premiums over the basic value of the gold they contain. Other items manufactured from gold and other precious metals are also retailed by the Perth Mint.



Super Pit - Courtesy Rolsh Productions

Western Australia provides over a third of the world's iron ore supply. Despite an increase of 7 per cent in the volume of production, the value of Western Australia iron ore in 1994 fell by 12 per cent. This fall was mainly in response to subdued conditions in the Japanese steel industry. Demand growth in China, Korea and Taiwan is expected to continue and is also projected to strengthen in Japan and Western Europe during the next few years.

In Western Australia's far north many mines that were established during the 1960's are now either exhausted or need upgrading. The Shay Gap site was closed in December 1993 and the cessation of operations at Koolan Island in June 1994 ended an era of mining from the Yampi Sound area. However, continued growth in the industry has seen the commissioning of seven new iron ore mines since 1990: Yandi, Jimblebar, Yarri (facilities from Shay Gap have been recycled for use at this site), Channar, Marandoo, Brockman and Mesa J. The \$360m Marandoo site, one of

Australia's largest mines, will produce an estimated 12 million tonnes of iron ore each year. This mine will provide employment for 200 people all of whom will be based at the township of Tom Price, 40 minutes by road from the mine site.



Iron Ore Train-Courtesy BHP Iron Ore Pty Ltd

Nickel

During 1994, the volume of Western Australia nickel production increased substantially by 40 per cent and the increase in the value of nickel produced was even greater at 45 per cent. Nickel is a major constituent in the manufacture of stainless steel. An increase in demand for stainless steel in overseas markets and an explosion at the Norilsk nickel complex in Siberia, which seriously disrupted production, (this site accounts for 15 per cent of world output) resulted in the world price of nickel rising to its highest level since 1991.

The commissioning of Mt. Keith nickel mine combined with the expansion of nickel operations at Kwinana and Kalgoorlie, have also bolstered nickel production in 1994-95. Mt. Keith is located 200km north of Leonora and is in close proximity to a number of other significant mineral deposits. Nickel sulphides were discovered at Mt. Keith in 1968. Further exploration located a large low-grade ore body in December 1969. By 1973, depressed nickel prices and currency exchange rates brought the project to a standstill. It has taken 25 years since its discovery for this vast ore deposit to be developed.

For the past 25 years the region surrounding the Mt. Keith site has been used for sheep grazing which has denuded most of the

Mining, Energy and Water Resources

TABLE 12.1- QUANTITY AND VALUE OF MINERAL PRODUCTION

Mineral	Unit	1993		1994	
		Quantity	Value \$'000	Quantity	Value \$'000
Base metals					
Copper	'000 t	29	30,210	25e	45,226e
Lead	'000 t	141	87,020	85e	54,119e
Bauxite-alumina	'000 t	7,801	1,891,856	7,933	1,702,076
Clays	'000 t	91	6,650	176	6,689
Coal	'000 t	5,471	248,439	5,035	235,088
Construction materials					
Aggregate	'000 t	260	1,435	110	660
Gravel	'000 t	88	438	125	628
Rock	'000 t	95	928	1,890	8,813
Diamonds	'000 ct	22,649	486,771	27,716	470,210
Dimension stone					
Black granite	t	2,034	559	4,263	2,630,615
Quartz Rock	t	390	18	795	36
Gold	kg	183,487	3,139,858	192,439e	3,256,793e
Gypsum	'000 t	145	1,329	210	2,558
Heavy mineral sands	'000 t	1,741	316,512	2,053	416,283
Iron ore	'000 t	116,339	2,996,735	124,263	2,630,615
Limesand-limestone	'000 t	2,099	14,189	2,223	14,689
Manganese	'000 t	248	43,403	228	33,147
Nickel concentrate	'000 t	530	437,744	679	637,004
Petroleum					
Crude oil (incl. condensate)	ml	6,217	1,069,175	11,094	1,630,944
Liquefied natural gas	gj	264,750	997,876	335,107	1,080,172
Natural gas	gl	4,211	422,957	4,915	441,965
Salt 000	t	6,489	158,649	6,806	152,275
Silica-silica sand	'000 t	528	4,997	637	5,765
Silver	kg	78,384	14,967	51,805	10,283
Talc	'000 t	165	12,055	101	7,307
Tin-tantalum-lithium					
Spodumene	t	33,353	8,359	66,298	11,247
Tantalite	t	337	14,617	240	22,117
Tin metal	t	73	848	209	1,409
Total value			12,426,699		12,885,114e
Total value other minerals			16,085		39,193e
Total all minerals			12,442,784		12,924,308e

(e) estimate Abbreviations: t-tonnes, ct-carat, ML-Megalitres, GJ-Gigajoules, GL-Gigalitres
Source: Department of Minerals and Energy

natural vegetation. The establishment of the mine will benefit the local environment by enabling much of the area to be regenerated with native flora.

The practice of re-establishing vegetation in areas which have been affected by development is widely accepted in the Western Australian mining sector.

Alumina

Alumina is the third most important of Western Australia's major mineral products. Alumina is produced by refining bauxite ore. This refining process results in the production of hydrated alumina which is used in the manufacture of paper, fire retardants, polishing compounds, water purifiers, toothpaste, many other products and alumina for smelting into aluminium metal.

Despite an increase in volume of production of 1.7 per cent in Western Australia in 1994, the value of alumina produced decreased by 10 per cent. Low market prices in 1993 resulted in consumers building up large stockpiles which led to a reduction in the demand for alumina in the following year. A stronger Australian dollar in 1994 also influenced international purchasing of Western Australian alumina. Australia is the world's lowest price alumina producer and Western Australia's proportion of total production is significant. The industry is poised for a huge expansion as Western Australia becomes the preferred supplier of alumina to Russia's aluminium smelters.

Strong recovery in demand in existing markets and new demand from South Africa will also stimulate an increase in production.

Mineral Sands

Several products are extracted from mineral sands. Titanium dioxide is used in the manufacture of paint pigment, fillers in paper, plastics, textiles and rubber. Zircon is used mainly in glazed tile production and the manufacture of dinnerware. Rutile is used in the manufacture of welding electrodes. Australian mineral sands producers are world leaders in the technology of producing synthetic rutile.

A severe slump in mineral sands prices occurred at the end of 1990 and persisted until late 1992 when the United States economy climbed out of recession. In Western Australia, this resulted in the deferring of several large scale mineral sands projects.

However, in the wake of a recent strong recovery in prices (an increase of 32 per cent in value of production during 1994), three ventures in the South West of the State are now proceeding. Almost \$400 million will be spent on upgrading and developing this industry in Western Australia.

Eneabba, north of Perth, and several areas in the South West are major centres for mineral sands production in Western Australia.

ARGYLE DIAMONDS

Contribution by Argyle Diamond Mines Pty Ltd.

Since the discovery of the AK1 pipe in October 1979, Argyle Diamonds has become one of the world's most successful diamond mining operations, gaining an unsurpassed international reputation for its product, use of technology and world class business standards alike.

Situated in the isolated Kimberley region of Western Australia, the Argyle diamond mine is the world's largest producer of natural diamonds, yielding more than 40 million carats of diamonds a year. This volume represents about one third of the world's total diamond production and constitutes a range of naturally coloured diamonds unrivalled anywhere in the world.

The Argyle diamond mine has two diamond recovery sites - the AK1 pit and the alluvial operation. The AK1 pit is an open cut mine using conventional benching techniques to recover diamond bearing ore from the AK1 pipe. The alluvial recovery operation retrieves diamonds from the creek bed in which the diamonds were first found. Once extracted from the pit, the mined material undergoes a process of crushing, scrubbing and screening. Diamonds are then removed from the ore through gravity separation. Because some waste material still accompanies the diamonds following this phase, sophisticated x-ray machines are used to identify the diamonds and remove them from the stream of ore concentrate. Following recovery from the waste ore material, the diamonds are then cleaned in acid baths, weighed and shipped to Argyle's Perth office. Here, a representative sample of diamonds is graded to over seven thousand categories to value the production for sale.

About 80 percent of Argyle's rough production is sold to the Central Selling Organisation, the marketing arm of De Beers. However, the very best stones are retained for cutting and polishing in Argyle's Perth facilities where some of the world's most skilled craftspeople prepare the diamonds for sale on the international polished diamond market. The balance of rough diamonds is sold on the world market through Argyle's European Sales Office in Antwerp, Belgium. Argyle's Antwerp Office also sells polished diamonds and manages the company's relationship with European and North American clients. Through a Representative Office in Bombay, Argyle maintains close contact with the Indian diamond cutting and polishing industry, which is the world's biggest. Argyle's Perth-based Polished-Sales Office services local and international polished diamond customers with particular focus on clients in South-East Asia and Japan.

The stones that come from Argyle range from the workhorse industrial diamonds, to exotic pink gem quality diamonds. Whilst Argyle's industrial quality diamonds are sought for their hardness and their use in the medical, dental and manufacturing industries, nearly 50 per cent of Argyle's total production finds its way onto the world jewellery market. In addition to the full range of coloured diamonds produced by Argyle, including white diamonds, Argyle is known for its Champagne Diamonds which are increasingly popular among jewellery buyers. Argyle has conducted a successful campaign in the United States to increase the awareness of Champagne Diamonds, and many North American jewellers now stock jewellery featuring these stones.

A tiny proportion of Argyle's production - a fraction of 1 per cent - is the highly prized, intense pink diamond, the 'signature' stone of the Argyle diamond mine. Argyle is the world's only reliable source of these much sought after gems and they are recovered in a range of shades from light rose to full-bodied purple-reds.

Once a year, Argyle issues a special release of outstanding pink diamonds which are sold by private tender in Geneva, Tokyo, Hong Kong and Singapore. This event has become an annual appointment for the world's leading diamantaires. Prices of the pink diamonds are dictated by the intensity of the colour and have sold for up to \$1 million per carat.

Argyle employs 650 people at the mine site, about half of whom are there at any given time. The operation has a commute system, under which employees work for two weeks at the mine, and then fly to Perth for two weeks leave. A further 230 employees are based at the company's Perth headquarters. Argyle's overseas offices employ 15 people in Antwerp and four in Bombay.

Female employees represent 20 per cent of the mine site workforce - the highest proportion working for any mining company in Australia. More than 10 per cent of the workforce is Aboriginal - about 10 times the figure for the mining industry as a whole. This level is the result of a decade of training and development programmes for Aboriginal people.

The new Jangardup mine, which opened in 1994, is the first major mineral sands project to commence operations anywhere in the world over the last four years.

Petroleum And Gas

Petroleum

The centre of Western Australia's petroleum exploration industry is located along the full length of the offshore Carnarvon Basin and is known as the North West Shelf. This oil and gas reserve is still relatively new but exhibits a promising future on the world oil market. From 1967 to 1984, Barrow Island, which has 440 production wells, was the sole operator on the Shelf. Since 1984, when North Rankin became the second producer, there has been steady growth and today more than 25 facilities involving seven separate operators are active within the region.

Despite a drop of world oil prices in 1994, there was a 27 percent increase in the value of all petroleum production in Western Australia. The drop in prices has not deterred production or the development of new technologies in anticipation of a revival of the market.

The new "Griffin Venture" which is a floating production, storage and offloading vessel (FPSO) is located 68km off Western Australia's north-west coast. For the Griffin development, an FPSO was more cost effective than an offshore platform. The 240 metre long, double-hulled vessel attaches to a production riser and draws both oil and gas from fields approximately 2,700 metres below the seabed. The riser weighs 1,000 tonnes and is connected to the wells by flexible flowlines. The seven tanks on the FPSO hold 90,000 tonnes and it takes over 30 hours to unload onto an offtake tanker.

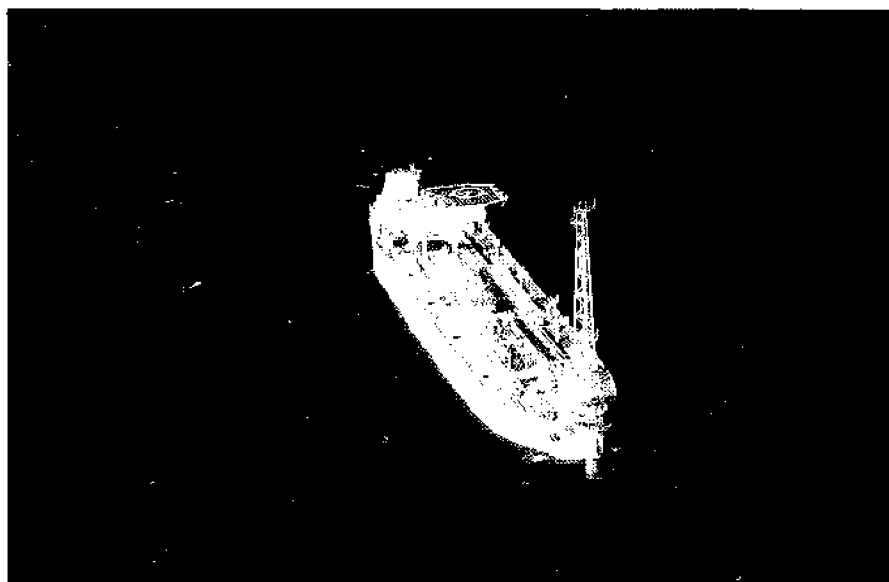
Costing \$600m, this project is Australia's largest crude oil development since the Bass Strait Fortescue field was commissioned in 1980.

Gas

The availability of gas from the North West Shelf has changed Western Australia's energy consumption patterns significantly.

The terms and conditions for the disaggregation of the domestic gas agreement into five separate contracts have now been established and took effect from 1 January 1995. The restructure allows the suppliers to sell gas directly to major customers. It is intended that this will create a more competitive environment and encourage new technical and marketing challenges for the joint venturers.

A \$400m natural gas pipeline is currently under construction which will supply industries between the North West Shelf reserves and the Eastern Goldfields. The Pilbara-to-Goldfields privately built, owned and operated gas pipeline is 1,400km long



The Griffin Venture; Courtesy BHP Petroleum Pty Ltd

and its construction is expected to provide 500 to 1,000 jobs.

Pilbara town of Port Hedland will receive an economic boost due to the construction of a \$6m pipe coating plant. The pipeline project requires 60,000 sections of coated pipe.

Natural gas now supplies more than 60 per cent of Western Australia's total energy requirements. Many vital export industries now rely on natural gas in their production processes. The use of natural gas provides an alternative to coal as a fuel for electricity generation and reduces dependence on imported fuel oils, resulting in economic and environmental benefits to the State.

Due to a higher demand in the Japanese market, Western Australia recorded an increase of 27 per cent in liquefied natural gas production during 1994.

Non Metallic Minerals

Diamonds

Despite a flood of rough diamonds from Russia on the world market, the Western Australian diamond industry outlook remains positive. The volume of diamond sales during 1994 increased by 22 per cent. However, a 3.4 per cent value drop in the value of sales was recorded. This was due to the lower price received by the producers of industrial diamonds. Almost all diamonds produced in Western Australia are sold on the overseas market with only a small amount sold within Australia. Prices for cut and polished stones remained static, possibly as a result of a new polished diamond pricing system which provides grading certificates to determine the price of individual stones. No such

pricing structure was in place previously and diamond dealers had to rely on their own expertise to value diamonds.

Salt

Salt is a basic feedstock for a wide range of products including glass, aluminium, plastic, pulp, paper and chemicals. Salt production increased by 5 per cent in 1994, however, a difficult trading year caused by an oversupplied market and a rise in the Australian dollar saw a decrease of 4 per cent in the value of production. The most significant salt producing areas are located in the north of the State in Port Hedland, Dampier, Lake Mcleod and Useless Loop.

The majority of Western Australia's salt is exported overseas, with Japan being the largest consumer (57 per cent). Lake Deborah East and Pink Lake, which are situated in the south of the State, are the main areas which supply salt for the domestic market.

Coal

The new \$880 million, 300MW coal fired power station near Collie in the State's south-west is due for completion in late 1999. This station will be supplied with coal produced by two new open cut operations. With an estimated construction cost of \$100 million each, both these mines will be in production by the end of 1995. Coal production decreased by 8 per cent and the value of production fell by 5 per cent during 1994.

Water resources

Research by the Department of Minerals and Energy (DOME) on the water contained in various bodies of rock, shale and sand under Perth has revealed an estimated 150,000 million cubic metres of fresh groundwater. This is the equivalent capacity of 25 Lake Argyles or 150 Sydney Harbours.

The groundwater lies in a series of formations. The Jandakot Mound provides 4 per cent of Perth's water and is close to the surface. Other reserves may lie as deep as two kilometres below ground level. The Yarragadee Formation stretches from north of Geraldton to far south of Bunbury and was formed in the Jurassic era between 135 and 200 million years ago. Geraldton is already supplied by the northern section of this formation. The water in this reservoir has lain undisturbed for 40,000 years.

The replenishment rate of groundwater is approximately 600 million cubic metres a year and about 300 million cubic metres a year is used by the Water Authority of Western Australia (WAWA) and private bore owners.

Whilst the resources are vast, they are certainly not unlimited. Crucial planning, development and management are necessary to protect the supply of groundwater from pollution, exploitation and wastage.

The Water Authority of Western Australia WAWA has completed several new capital works programs and has initiated projects primarily concerned with eliminating the adverse effects of existing systems which pose a hazard to the environment.

Water Sources Development March 1995 saw the connection to the metropolitan distribution system of the North Dandalup Dam. The dam supplies 11,200 megalitres of water per year. Expenditure on the project amounted to \$63.3 million.

The \$11 million Ten Mile Brook Dam became operational in 1994-95 and supplies the Margaret River region. This area is a prime tourism centre and construction of the dam has provided the town with a reliable and consistent water supply. This has overcome water quality problems from the old supply source.

Environmental Awareness Currently WAWA is rewriting its by-laws to ensure modern pollution measures are employed to stop unacceptable practices in water source areas. WAWA recognises the need to keep catchment areas free from development if it is to guarantee a safe and economical water supply for future generations.

In cooperation with other agencies including the Departments of Environmental Protection, Conservation and Land Management, the Waterways Commission and the Ministry of Planning, WAWA is preparing policies and strategies which will protect and improve the quality of the State's water resources.

In association with the CSIRO, WAWA provides funding towards groundwater quality research projects in the metropolitan area such as the impact of applying fertiliser to gardens.

WAWA is redirecting wastewater from a treatment plant at King Point to a land disposal site 13 km north of the town of Albany. This will end outflows of effluent into King George Sound. The result of this will safeguard the area for recreational fishing and protect the ecosystem of the Sound. The treated wastewater will be used to trickle irrigate a 300 hectare bluegum plantation.

Water Restrictions On the 31st of October 1994, WAWA imposed day-time sprinkler bans across Perth, Mandurah, the Goldfields and agricultural areas. WAWA was seeking a 10 per cent lowering in water consumption and achieved a 9 per cent saving overall. Water savings within the Perth metropolitan area averaged 7 per cent, although meter readings showed 133 Perth suburbs saved more than 10 per cent. The volume of water saved during the 1994 summer was 18.4 million kilolitres. The capacity of the major dams was 152 million kilolitres at the beginning of the 1995 winter which represented only 21 per cent of total storage capacity. Although some significant rainfalls were recorded during the 1995 winter months, there was minimal runoff into the dams, which are still at low levels.

Restructure of Water Authority of Western Australia

As of January 1 1996, WAWA will be restructured creating three new organisations each focusing on particular aspects of the water industry. The four existing bodies which presently comprise WAWA (the Water Resources Division of WAWA, the Water Resources Council, the Waterways Commission and the Hydrogeological and Groundwater Resources Branch of the The Department of Minerals and Energy) will be amalgamated. The restructured organisation will consist of a new Water Resources Commission responsible for the management of the State's water resources and waterways, an Office of Water Services to regulate the water services industry and a corporatised water Utility to deliver water related services. The facilitator managing the project is the Water Industry Restructure Implementation Group (WIRIG). The State Government will continue to own and manage the facilities of the now existing WAWA but under the new management strategy, more use will be made of private enterprise service groups. The corporatised water Utility will be operated as a commercially oriented public company with a Board of Directors who will oversee the normal day-to-day operations.

HOUSING AND CONSTRUCTION

Chapter 13

HOUSING AND CONSTRUCTION

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Chapter 13

HOUSING AND CONSTRUCTION

Housing & Construction in 1994-95

by Gavan J Forster, B Comm (Hons), MBA (Econs), Dip Ed, Director, Economics and Housing and Ryan Donaldson B Econ, Economic Research Officer, Master Builders Association of WA

Introduction

The Western Australian building and construction industry can be broken down into three distinct sectors:

- Housing/residential building;
- Commercial/non-residential building; and
- Engineering construction.

Each sector often operates at a different stage of the business cycle and this was the case in Western Australia in 1994-95.

Residential Building

This sector covers construction of single detached housing, multiple unit development including villas, town houses, duplexes and flats.

Housing

Housing activity plunged toward the end of 1994-95 under the weight of significant overbuilding, higher interest rates and buyer uncertainty. Builders are currently reporting weakening onsite activity, and are experiencing a significant decrease in sales and inquiries, especially in the first homebuyer market. So far this decline has been less severe in the upper priced categories which are less sensitive to interest rate rises and speculation.

Variable housing interest rates have risen to 10.5 per cent over the past year. This increase has dampened activity considerably, by reducing the level of housing affordability and impacting on the high level of household debt currently borne by consumers. Competition remains fierce among institutions for home lending and fixed interest rate loans are now extremely popular.

Regional Western Australia has also suffered a downturn in activity levels, however the strength of this downturn has generally been less severe than in Perth. For example, activity in the South West is quieter but remains at satisfactory levels.

1994 Property Market Review

Contributed by Lino Iacomella, Public Affairs Director,
Real Estate Institute of Western Australia (REIWA)

The property market in 1994 was characterised by active selling and construction levels in the first half leading to a peak around mid year, followed by a general market downturn which deepened in the latter months.

The property cycle peaked in 1994 for the residential sector, whilst the non residential sector continued its long recovery out of the 1991-92 recession.

The median price of established house sales as at December 1994 was \$124,000 which represents an increase of 8.5 per cent over the same time last year. The median price of home units rose by 9.8 per cent during the year, reaching \$88,000 in December 1994.

There were 51,000 established homes sold in Western Australia during 1994 which is 28 per cent up on the previous year. However there were significantly more sales in the first half of 1994, when almost 60 per cent of total sales occurred. The monthly average number of land sales in the first half of 1994 was 3,800, and this fell to 2,900 sales per month in the second half of 1994.

The non residential property market continued to improve throughout 1994. This was typified by a further reduction in the Central Business District office vacancies during the year, falling, from 25 per cent to below 20 per cent.

The main factor influencing the property market during the year was rising interest rates. After reaching a low point of 8.75 per cent the variable home loan rate rose to 9.50 per cent, by December of 1994. The rise in interest rates and a significant increase in the size of average home loans resulted in a sharp deterioration in homebuyer affordability during 1994. This, and an oversupply of housing stock after the 1993-94 building boom, are the main reasons for the downturn in sales in the residential sector.

There were no major office towers constructed in 1994, and most non residential construction was focused on shopping centres, including the completion of Morley Galleria, and Whitfords City shopping centre. There were some notable CBD office tower sales during the year including the sale of

BankWest Tower for \$146 million, London House at \$29 million, and 30 The Esplanade selling for \$23 million.

Perth suburban shopping centres were competitively sought after during 1994, the major sale was Karrinyup Shopping Centre, selling for \$162 million.

There were major advances in promoting inner city living during 1994. The first land sales in the vast East Perth redevelopment project occurred and the number of building permits for inner city residential dwellings in Perth reached a new peak at around 900.

The suburban fringe of the Perth metropolitan area continued to expand in 1994, bringing with it an increase in conflict between city and semi-rural lifestyles. Flashpoints for this occurred in the Swan Valley and in the foothill areas.

In regional Western Australia differences emerged in property markets according to local economic conditions. In the Goldfields and Pilbara regions the property markets were very active flowing on from the buoyant mining industries. Strong employment growth and shortages in housing has resulted in solid price growth for housing in major centres like Kalgoorlie and Karratha.

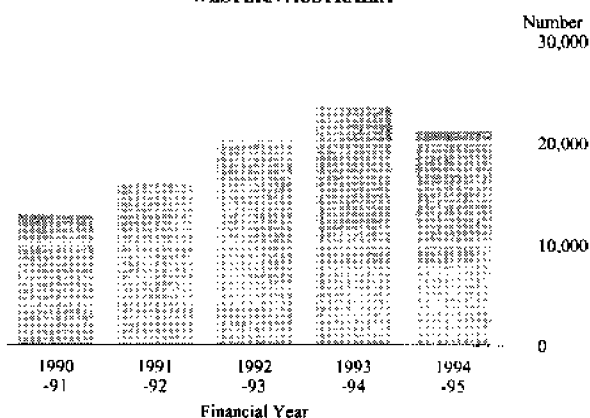
In other agricultural based centres like Geraldton the property markets were more in tune with the Perth metropolitan area.

Another regional property market which was particularly active in 1994 was the tourism based areas centered around Busselton/Dunsborough and Albany. These areas are generally undersupplied with tourist accommodation facilities. The development of hotel/motels and private bed and breakfast facilities became a growth industry during the year.

In Western Australia, dwelling commencements reached 21,187 in 1994-95, this is a decrease of 9.8 per cent on 1993-94. The Perth metropolitan area showed a similar trend with commencements falling by 10.7 per cent over the same time period. Rockingham, Wanneroo and Mandurah are the areas where building is still the strongest.

Demand for building trades has dropped significantly since activity peaked in August 1994. Bricklayers and carpenters are currently well over-supplied. The cost of building materials and labour rose moderately over the period, with price pressure easing with lower activity levels. However, overall housing costs are expected to rise in the future with the introduction of alternative, more expensive termite treatments from July 1995, and the generally faster pace of inflation.

**DIAGRAM 13.1
BUILDING COMMENCEMENTS
WESTERN AUSTRALIA**



Source: ABS Catalogue No. 8741.5

Unit Construction

Activity in "other residential buildings" has fallen from the high levels previously recorded. The private sector is expected to bear the brunt of the current downturn, as the oversupply in the rental sector becomes more evident. Reduced prospects for capital gains are likely to dampen investor enthusiasm for property in the short to medium term.

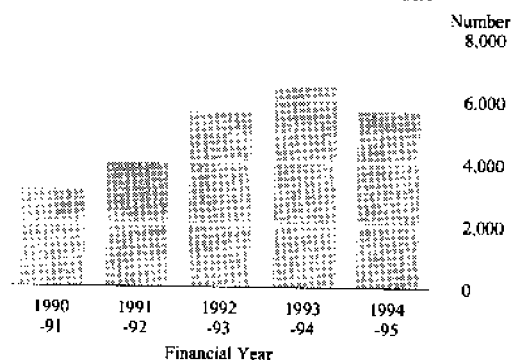
Western Australia recorded 5,662 dwelling commencements in the 1994-95 in this category, compared to 6,446 in 1993-94, a decrease of 12.1 per cent.

This sector is usually subject to significant volatility in activity levels and appears set to enter a period of more subdued activity.

Alterations and Additions

Activity in this sector continues to improve. In 1994-95, \$156 million worth of major renovations over \$10,000 have been

**DIAGRAM 13.2
UNIT CONSTRUCTION
WESTERN AUSTRALIA**



Source: ABS Catalogue No. 8741.5

recorded in Western Australia. This rise, from \$150 million in 1993-94, could be attributed to the rise in interest rates making renovation more attractive than purchasing or building a new home.

Non-Residential Building

This sector includes activity in the construction of buildings such as offices, hotels, educational premises and shopping centres.

Earlier prospects for a substantial recovery in commercial building activity in Western Australia during 1995 have been delayed. Despite a 13 per cent rise in the value of approvals in 1994-95, significant improvement in large scale commercial projects is still some way off. Once interest rates have stabilised and the oversupply absorbed, investor confidence will return and investment in large industrial projects will resume. Currently, activity is focused on multi-unit development especially in East Perth and the Central Business District.

Also included are factories, small shopping centres, warehouses and smaller offices throughout the metropolitan area. One positive indicator for the industry is a small increase in the tender market, especially in the metropolitan area, although the design and project management sectors are yet to show improvement.

The likely scenario for 1995-96 appears to be a similar level of approvals to last year with a slight fall in onsite activity. A substantial recovery is not expected until at least 1996, and a buoyant commercial building sector, particularly in tourist-related activity and the City of Perth Precinct development, will lead the way.

Engineering Construction

Engineering construction activity continues to perform at strong levels in Western Australia, spurred on by a healthy mining sector and strong infrastructure budgets. Current or prospective projects include the Collie Power Station, Subiaco 2000 Rail Development and the City Northern By-Pass Project.

TABLE 13.1 - VALUE OF ENGINEERING CONSTRUCTION WORK DONE, WESTERN AUSTRALIA, 1993-94 FINANCIAL YEAR
(\$ MILLION)

Reference: Catalogue No. 8762.0

<i>Type of work done</i>	<i>Amount</i>
Roads, highways, bridges & railways	550.7
Harbours	63.7
Electricity generation, transmission & distribution	84.3
Pipelines	65.0
Heavy Industry	686.4
Other	355.1
Total	1,805.2

References

ABS publications

Estimated Stocks of Dwellings, Western Australia (8705.5)

Building Approvals, Western Australia (8731.5)

Dwelling Unit Commencements, Western Australia (8741.5)

Building Activity, Western Australia (8752.5)

Engineering Construction Survey, Australia (8762.0)

Census Counts for Small Areas, Western Australia (2730.5)

COMMERCE

Chapter 14

COMMERCE

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COMMERCE

Small Business

Contributed by the Small Business Development Corporation

Introduction

The WA small business sector continues to grow and increase its contribution to the State's economy. Overall the small business sector has continued to dominate commercial activity, contributing to the bulk of employment, innovation and general economic activity.

A 'small' business is any business which is:

- independently owned and operated;
- managed personally by the major investor(s);
- maintains a relatively small share of the market; and
- does not form part of a larger group.

For statistical purposes, small businesses are defined as:

- non-manufacturing businesses employing less than 20 employees
- manufacturing businesses employing less than 100 employees.

Small Business Facts and Figures

Small Business Growth The last five years has seen a growth in the number of small non-agricultural businesses in WA. Between 1990-91 and 1993-94, the number of small businesses grew by 10.5 per cent to a total of 76,100.

Although the rate of growth has slowed over the last year, current indicators suggest the WA small business sector remains strong.

One indicator is the number of new *Business Name Registrations*, which in 1994 reached record levels for the second consecutive year. New registrations for 1994, totalled 30,745 representing an 8 per cent rise on 1993 and a significant 24 per cent rise on 1992. This brings the total business name register in WA to approximately 170,000.

While each new registration does not necessarily mean a new business, it is a positive indicator of small business activity in the State. In addition, business name renewals were up nearly 11 per cent on the last financial year after only a small rise during the previous year. Businesses are required to renew their business name registrations every three years, and the rise in renewals reflects the favourable business conditions of the last few years.

Business Employment Nearly 257,000 Western Australians are employed in the small business sector, which comprises over 50 per cent of private sector employment in WA. They consist of 32,000 employers, 74,300 self-employed, and 150,400 small business employees.

The following chart indicates the importance of small business to total employment growth. Marginal growth in big business employment since 1990-91 and cutbacks in public sector employment, have been off-set by strong gains in small business employment.

Self Employment The number of self-employed persons (unincorporated businesses with no employees) has been growing at a greater rate than the small business sector overall. Between 1990-91 and 1993-94, the number of self-employed grew by 13 per cent, compared to 10.5 per cent for the total number of small businesses.

This growth can be attributed to a number of structural changes within the Australian economy. Outsourcing of non-core activities is a growing trend as big businesses and governments downsize in a bid to improve efficiencies. This has provided the opportunity for self employed persons and small firms to provide contract services previously undertaken inhouse, in almost all areas of activity, including maintenance, transport, human resources, marketing and information technology.

Changes in technology have had a definitive impact on self-employment practices and business opportunities. With office equipment relatively cheap, compact, and user friendly, self employed persons are able to effectively operate home based businesses without the in-house support traditionally required.

The advent of the 'information age' is also providing new opportunities and demand for knowledge-based services in the marketplace.

The increase in the number of dual income families and the aging population are creating a need for more sophisticated home/community based services - such as child care, health care for seniors, and home maintenance services. These services are providing new opportunities for home-based self employed persons, many of which are being taken up by women.

Self Employed Women In WA, women currently comprise 32 per cent of all self-employed persons (approximately 23,700) and 33 per cent of employers (approximately 10,500). An important development is that the number of women in self-employment is increasing at a proportionately faster rate than for men.

While the number of self-employed men still accounts for two-thirds of all self-employed persons, between 1983 and 1992, the number of self-employed women increased by 38 per cent and men by only 21 per cent.

Table 14.1 - SMALL BUSINESS BY INDUSTRY
Average Annual Rate of Change - 1983-84 to 1991-92
Reference: Catalogue No. 1321.0

Industry division (a)	Businesses	Employment
Manufacturing	5.6	1.4
Construction	7.1	5.3
Wholesale trade	0.9	2.6
Retail trade	0.4	1.1
Transport and storage	7.4	2.1
Finance, property and business services	6.4	4.8
Community services	6.0	1.8
Recreational, personal and other services (b)	5.8	3.1
Total Average (c)	4.6	2.4

(a) Industry divisions as defined in *Australian Standard Industrial Classification 1983* (1201.0). (b) Excludes private households employing staff. (c) Includes the Electricity, gas and water and Communication industries.

Special characteristics of small business Small business is now acknowledged as a vital and significant sector of the Australian economy, and this recognition has resulted in increased attention being given to the practices and requirements of small firms. The small business can often be characterised by its:

Independence The small business operator is often driven by the desire to be economically independent. Most small businesses proprietors feel that the main advantages of operating a small business were personal factors such as: freedom, independence, flexibility and job satisfaction.

Innovative Nature Although small businesses face considerable barriers in introducing new products to markets, they are often on the cutting edge of innovation, able to fill niches untouched by larger businesses. The ability of small firms to respond quickly to changing markets and the introduction of new technology, can compensate for the small market share and absence of economies of scale experienced by small businesses.

Barriers to Finance Access to finance under appropriate terms and conditions continues to be a significant barrier for many small businesses.

Insufficient capital assets, an uncertain future and a lack of credit history can work to restrict the borrowing power of many smaller firms. Consequently, small businesses tend to take a short term view of investment which restricts their long term planning and growth. Proprietors also frequently lack knowledge of the appropriate sources of development finance and working capital, and are generally unskilled in presenting a financial case to potential lenders and investors.

Limited Management Expertise

Considering there are often only one or two individuals responsible for the whole spectrum of business decisions required to operate a business, proprietors must either maintain a broad knowledge of all management areas or draw upon external expertise. Small business owner/managers must always operate on two levels, one to manage and administer the business and two, to undertake their respective trade.

Given that larger organisations often have specialised in-house staff to manage the various business functions, it is not surprising that the main reason given for small business failure is management inexperience.

Small Business Opinion Survey

Employee Training Takes A Nose-Dive

The proportion of WA small businesses providing training to their staff has been steadily declining over the past five years, according to the *Small Business Opinion Survey*.

The latest survey undertaken by the Institute for Small Business Research in May of this year, shows that only 35 per cent of surveyed small businesses offered any formalised training to employees - down from 57 per cent in November, 1990.

Interestingly, management training does not appear to follow the same severe pattern, and has maintained a relatively consistent level over the survey period. However, it remains quite low - with only around one in five firms undertaking any form of management education.

Types of Employee Training

'On the job' training has been the preferred method of training by those surveyed, followed by short industry or private courses and apprenticeships.

It is therefore of no surprise that 'on the job' training has seen the most drastic decline, from 40 per cent of firms in May 1993 to 25 per cent in the latest survey.

Also of concern is the fall-off in apprenticeships - a further indicator of small firms' disinclination to invest in training. In May 1995, the percentage of surveyed firms offering apprenticeships was 7 per cent, which is approximately half the proportion of firms providing apprenticeship just two years

earlier. Survey results suggest that the enhancement of staff skills is not an area of high priority among small firms.

The fall-off in employee training presents an interesting dilemma when other findings from the survey are taken into consideration. Over the past three years, surveyed firms have consistently reported 'difficulties in finding the right staff' and the 'availability of labour/skills' as major factors limiting their business activity - 60 per cent and 34 per cent of all respondents respectively. The picture being painted is that a large proportion of the small business sector is averse to investing in the upskilling of staff, and yet clearly there is an ongoing need for new or enhanced workplace skills.

These findings add fuel to the current debate on who is ultimately responsible for industry training - the individual, industry or the educators. It also stresses the fact that training can not be treated in isolation. There are a number of other issues which have a direct influence and bearing on what training is undertaken, and when. For example:

- industrial relations and changes in employment conditions;
- the cost of labour, including compliance costs, superannuation, PAYE tax and others;
- the short term rather than long term approach to planning by the majority of smaller firms, and
- the changing nature of the workplace - where staff no longer treat employment as a 'job for life'.

Clearly there is much that needs to be done, and many issues which need to be resolved before the benefits of training can be realised by small firms and their employees.

Small Business Outlook

After six months of contradictory signals, small business operators can be excused for feeling confused about the state of the economy and the short term outlook for small business.

The 'soft' economic landing during the first half of the year, with a depressed housing market and a slow down in consumer spending, has been accompanied by a record number of business name registrations and a decrease in unemployment rates.

Small business operators, particularly those in the retail and construction sectors (which account for nearly 40 per cent of WA's small businesses), have felt the downturn after a two year period of exceptional growth. Although business investment is on the rise in WA, most of this expenditure has been in the resources sector, with flow-on effects yet to fully reach small business. Therefore the rate of growth in the small business sector is expected to be lower than in the previous 12 months.

The latest Institute for Small Business Research's Small Business Opinion Survey indicates that Western Australian small businesses are optimistic, but more cautious in their outlook.

In the November 1994 survey, 45 per cent of respondents *forecast* improved economic conditions for January - June 1995. However in the May 1995 survey, only 20 per cent of respondents actually *experienced* improved conditions for that period. The gap between expectations and actual reported conditions indicated in the May survey, show that the sudden slowdown in economic activity in early 1995, took many businesses by surprise. As such, expectations for the next six months (July - December 1995), have been revised downwards including levels of new orders, sales turnover and profitability.

While the economic indicators for WA in 1995-96 may not be as impressive as for the previous year, it is generally accepted that the level of economic growth over the last 2-3 years has been exceptional and a decline in these levels should not be unexpected.

However, small businesses can expect a more stable economy and a sustainable growth rate in the short to medium term. This is supported by the fact that expectations of further interest rate rises in the short term have been reduced. Along with the low inflation environment, there is now an opportunity for small businesses to consolidate on gains made over the last few years.

In the longer term, with Australia's increased savings and steady progress, and with ongoing labour market reforms, leading economists predict five years of solid growth and low inflation. To benefit from this upswing (predicted to commence in early 1996), business needs to invest in capital equipment, so that additional capacity is available to meet this expected growth.

MANUFACTURING

Manufacturing statistics

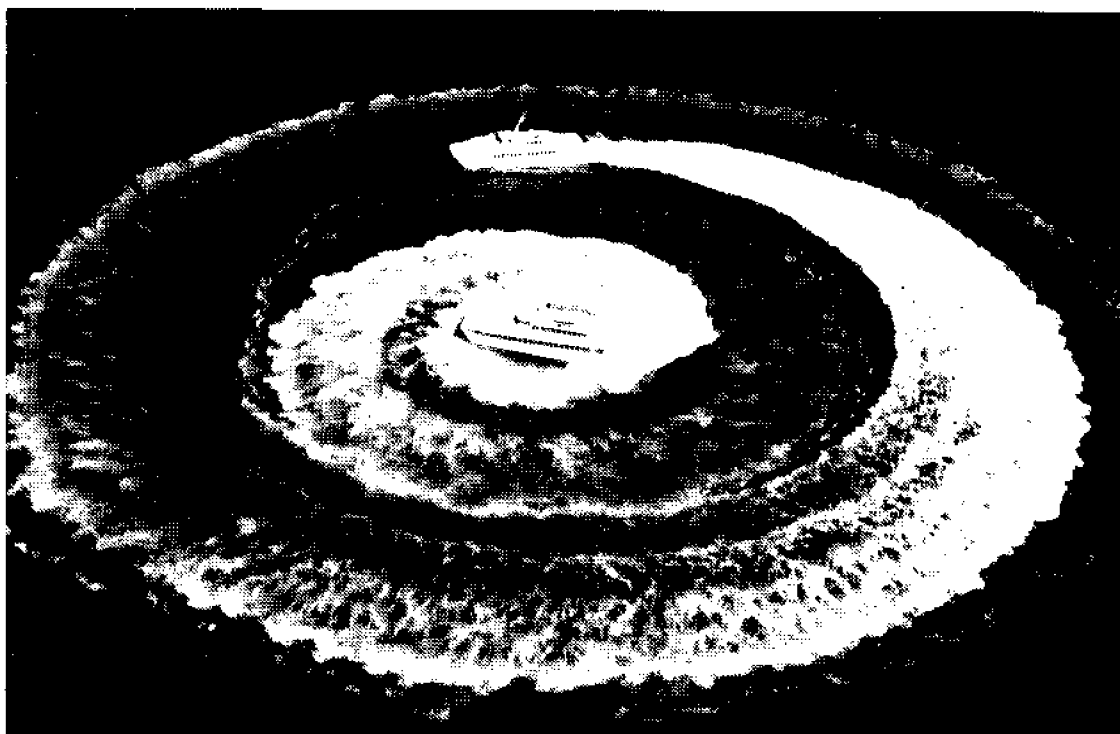
The Perth Statistical Division accommodates over 80 per cent of Western Australia's manufacturing sector. The South West, where mineral and timber processing establishments are mainly located, is the only other region within Western Australia with a significant proportion of manufacturing activity. Many of Western Australia's manufacturing establishments are small in relation to the rest of Australia, with over 90 per cent employing less than 20 persons. However, half the total turnover is accounted for by businesses employing over 100 people (just 1.5 per cent of total manufacturers).

The Western Australian manufacturing sector has concentrated more on sophisticated niche activities in recent years. The facilitation of these activities has been achieved by relatively low input costs and the State's close proximity to the developing Asian markets.

The exceptional growth of the State's mineral production has resulted in the expansion of the manufacturing and engineering construction sectors. The demand for improvements in efficiency have resulted in increased participation by Western Australia's manufacturers to supply machines, equipment and technology. Industrial chemicals used in resource industry processing, such as ammonium nitrate, caustic soda, chlorine and sodium cyanide are now manufactured within Western Australia.

Many resource projects in the North West of the State require specialised equipment and infrastructure. Local manufacturers realising the potential associated with these projects have responded. Innovations in fabrication, machinery, equipment and technology have had a significant impact on Australian and overseas markets.

One of the manufacturing growth sectors in Western Australia is the ship building industry, most of which is located on the Jervoise Bay waterfront, a region extending from Naval Base to Fremantle. A large area of this land was made available by the State Government as an incentive to assist in the establishment of this industry. Excluding naval shipbuilding, 65 per cent of Australia's marine industry is accounted for in Western Australia. In 1993-94 this industry was worth \$319 million, the export value of which was \$300 million (*Source: Chamber of Commerce and Industry*).



Austal Ships

One of the leading companies in the ship building industry is Austal Ships which was established in 1988 employing about 40 people. The company today employs around 550 people. Austal is recognised as one of the world's leading designers and manufacturers of lightweight, high speed aluminium passenger and vehicle carrying vessels and cruise ships. Most of the vessels produced are between 40-50 metres in length but the company has the capacity to manufacture vessels up to 100 metres. The focus of the company is the fast ferry export market and to date has been most successful in Hong Kong and China (an estimated 3 million people per year travel between Hong Kong and China on Austal ferries). Inroads into the lucrative Japanese market were made when the first Australian built ferry for regular commuter service was delivered in May 1995. Other markets for Austal Ships include Singapore, Indonesia, Tahiti, Northern Europe and Turkey.

Information: Courtesy of Austal Ships Pty Ltd

Australian Fine China

Situated on almost 2 hectares of endowment land in the Perth metropolitan suburb of Subiaco is Australian Fine China which is the sole manufacturer of porcelain tableware in Australia. The company was founded in 1921 as the Calyx Porcelain and Paint Company and since then has marketed its products under several brand names. Wembley Ware, Bristile Porcelain, Bristile China and Bristile Fine China are product names which would be familiar to many Western Australians. The present name, Australian Fine China, was adopted in 1992.

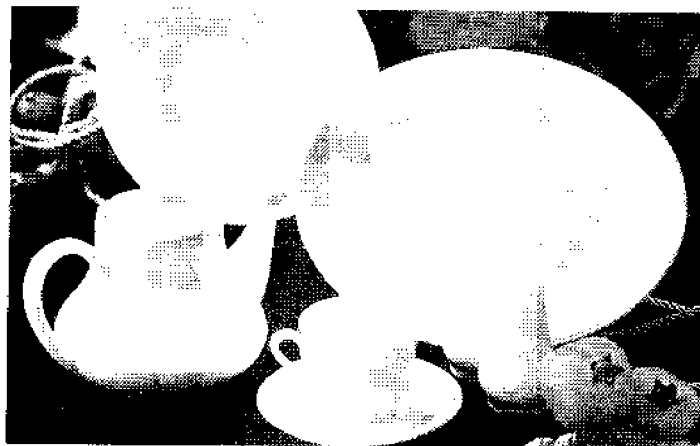
The Company prides itself, whenever possible, on using only Western Australian or Australian raw materials in its manufacturing processes. The supply of various types of kilns and specialised machinery is also contracted to Australian companies, imported goods only being used when no Australian alternative can be found. Australian Fine China currently employs 175 people, 140 of whom are engaged in the actual manufacturing procedures.

At present, Australian Fine China represents about 70 per cent of the Western Australian market and has been awarded contracts to supply many Government departments and institutions. However, due to the inherently restricted nature of these traditional markets, Australian Fine China is actively pursuing retail markets. The company has sales offices located in Brisbane, Sydney and Melbourne which support a system of 60 independent distributors. Australian Fine China currently represents 30-40 per cent of the porcelain tableware market Australia wide.

Unlike most other Western Australian manufacturers, who have prospered in the expanding Asian markets, the export potential of Australian Fine China has not been developed. The production of china is extremely labour intensive and large international companies have established factories in areas where the cost of manufacture remains relatively low because of the 'cheap labour' component. However, with new designs and recent capital investments in technology, Australian Fine China is poised for increased export activity. New Zealand is the company's major overseas export market at present.

Information: Courtesy of Australian Fine China

Renaissance: Courtesy of Australian Fine China



Retail and Wholesale Trade

Retail and Wholesale Trade

Wholesale trade is described as the resale of new or used goods to retailers and other business users (including farmers, builders, government and professional bodies).

Retail trade is described as the resale of new or used goods to final consumers for personal or household consumption. Detailed information about the retail sector has been collected using Censuses of Retail Establishments, the first of which was taken for the year 1947-48.

Eight censuses have been taken since then as part of the ABS program of rotating economic censuses. Results from each census are published for each State and Territory and for Australia. Surveys of retail trade, which were introduced from 1956, have enabled the production of estimates of retail trade on a less detailed but more frequent basis.

Census of Retail Establishments

The most recent census was taken for the year ended 30 June 1992 and included all establishments classified to the Retail Trade subdivision of the Australian Standard Industrial Classification (ASIC), excluding bread and milk vendors, shoe repairers and electrical appliance repairers not elsewhere classified.

Survey of Retail Establishments

Since 1956, intercensal estimates of the value of retail sales have been produced by means of sample surveys. Surveys were initially conducted quarterly but are now conducted on a monthly basis. The surveys are reviewed periodically, generally to account for changes reflected in the results of each retail census.

The survey conducted since June 1988 is based on the results of the 1985-86 Retail Census and produces estimates of 'turnover' by retail establishments rather than the narrower estimates of 'retail sales'. The surveys are conducted monthly, (quarterly prior to April 1982), and estimates are published in *Retail Trade, Australia* (Catalogue No. 8501.0).

Estimates of turnover (in original current price terms), by industry group for 1991-92 to 1993-94 are provided in Table 14.2.

Diagram 14.1, covering the period December 1991 to December 1994, illustrates the seasonal nature of retail turnover, the long term upward trend in retail turnover and the monthly variations that can occur. Data is presented as trend estimates in current price terms.

DIAGRAM 14.1
RETAIL TURNOVER
WESTERN AUSTRALIA

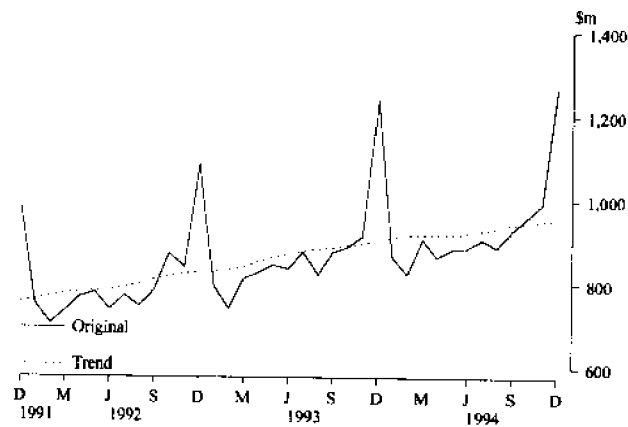


TABLE 14.2 - RETAIL TURNOVER ANNUAL ESTIMATES
AT CURRENT PRICES, BY INDUSTRY GROUPS (a)
1991-92 TO 1993-94
(\$ million)

Reference: Catalogue No. 8501.0

Industry group	1991-92	1992-93	1993-94
Grocers, confectioners, tobacconists	2,938.8	3,123.5	3,232.1
Butchers	77.3	94.8	88.8
Other food stores	685.2	731.7	955.6
Hotels, liquor stores, licensed clubs	878.9	952.1	1,075.8
Cafes and restaurants	513.5	596.0	665.5
Clothing and fabric stores	474.7	561.7	542.7
Department and general stores	980.1	1,026.2	1,087.3
Footwear stores	92.5	106.0	127.3
Domestic hardware stores, jewellers	245.3	269.2	305.3
Electrical goods stores	452.8	536.7	659.0
Furniture stores	164.6	193.3	179.1
Floor coverings stores	71.6	74.0	89.7
Pharmacies	370.3	374.2	419.4
Newsagents	192.3	290.5	338.8
Other	459.6	443.3	545.3
Total	8,597.2	9,373.2	10,311.7

(a) Excludes motor vehicle dealers, petrol and tyre retailers.

TRANSPORT

Road Transport

Main Roads is the principal manager of the Western Australian roads system. In conjunction with local government authorities, it provides an effective, efficient and environmentally friendly transport network. Currently Main Roads is achieving its objectives by the implementation of three programs:

The Road Preservation Program - to preserve the road asset to a standard that will maximise safety and minimise whole of life cost.

The Road Use Program - to optimise the utilisation of the existing road network.

The Road Expansion Program - to provide for the future transportation needs of the community.

TABLE 14.3 LENGTH OF WESTERN AUSTRALIAN ROAD NETWORK
YEAR ENDED 30 JUNE 1995

	Sealed km	Unsealed km	Total km	Sealed per cent
CLASSIFIED ROADS				
National Highways	4652	-	4,652	100
State Highways	3605	-	3,605	100
Main Roads	5,976	1,553	7,529	79
Secondary Roads (Local Govt.)	6,122	2,274	8,396	73
Total Classified Roads	20,355	3,827	24,182	84
UNCLASSIFIED ROADS				
Local Roads (Local Govt)				
Regularly Maintained	23,826	88,017	111,844	21
Local Roads (Local Govt)				
Not Regularly Maintained	45	4,422	4,467	1
Total Unclassified Roads (Local Govt)	23,871	92,439	116,311	21

Source: Main Roads Department of Western Australia

Main Roads specifically manage highways and main roads. Local government authorities are usually responsible for a large proportion of secondary roads and unclassified roads (those which provide access to sub-divisions and housing estates). The Federal Government assumes responsibility for national highways throughout Western Australia. Forestry roads are administered by the Department of Conservation and Land Management and total 25,337 km.

Funding for the Western Australian road network is derived mostly from grants. In 1993-94 Commonwealth grants amounted to \$78.1 million. Revenue from State Government grants, trust funds, motor vehicle licenses and fees totalled \$224.9 million. Funds allocated to local government authorities for construction and maintenance of roads and associated infrastructure (bridges, culverts, cycleways, etc.) were approximately \$92 million.

Motor Vehicles

As of 1 August 1995, the Department of Transport became responsible for the registration and licensing of vehicles as well as the licensing of motor vehicle drivers. These functions were previously managed by the Commissioner of Police.

TABLE 14.4 - MOTOR VEHICLE REGISTRATIONS

Reference: Catalogue Nos 9304.5, 9305.5

<i>Year ended 30 June</i>	<i>1993</i>	<i>1994</i>	<i>1995(a)</i>
NEW MOTOR VEHICLE REGISTRATIONS			
Motor cars and station wagons	45,567	48,589	51,947
Utilities and panel vans	9,581	10,350	10,782
Trucks and buses	1,975	2,136	2,170
Motor cycles	2,117	2,103	2,344
Total	59,240	63,178	67,243
VEHICLES ON REGISTER			
Motor cars and station wagons	803,728	827,837	855,129
Utilities and panel vans	153,346	156,889	161,012
Trucks and buses	116,062	120,577	125,231
Motor cycles	37,894	37,078	37,440
Total	1,111,030	1,142,381	1,178,812

(a) For 1995 vehicles on register is at 31 May.

Public Transport

The Western Australian Parliament passed the Acts Amendment (Perth Passenger Transport) Act in December 1994 to reform the existing public transport system. The responsibility for the operations of the Metropolitan (Perth) Passenger Transport Trust, now trading as MetroBus, was transferred to the Department of Transport. Suburban rail services have returned to Westrail who will also provide those services on a contract basis to the Department of Transport.

Bus Services

The name change from Transperth to MetroBus occurred on 14 February 1995. There are two operating divisions within MetroBus: bus and engineering operations and corporate services. A three year program (ending 1995-96) has been instigated with the aim of reducing the operating deficit of MetroBus by \$47 million a year. MetroBus is also currently undertaking an extensive restructuring process to enable it to successfully compete for contracts offered for tender. The first two tenders

offered for the Armadale and Joondalup routes were awarded to MetroBus which outbid five other tenderers. Charter services have become a significant revenue earner for MetroBus. Special events, such as the Asia Pacific Scout Jamboree which was held in Perth in late 1994, utilised this facility to transport participants to and from the various venues. The increase in demand for public transport required for special community events such as Australia Day celebrations and major sporting events, is met by MetroBus which provides additional services specifically for that purpose.

Ferry Services

The regular ferry service between Mends Street Jetty in South Perth and Barrack Street Jetty in the city was awarded to an external tenderer in February 1995. This was the first public transport service offered to competitive tender. Private ferries operate tours on the Swan River to destinations such as vineyards and harbour cruises around Fremantle. The Rottnest Island ferry system is also privately operated.

Rail Services

In May 1995, the Western Australian Government introduced its 'Right Track' Program to improve the competitiveness and efficiency of Westrail. The objectives of the Program over the next three years will be:

- the outsourcing of many activities which were specific to Westrail to reduce its labour force;
- the wagon fleet to be reduced by 1,060 to 2,000, and
- the purchase of 24 new locomotives.

The reforms introduced by the Program will benefit consumers by reducing freight rates. The reduction of the labour force, new equipment and the selling of assets (including land) which are no longer required, will enable Westrail to become financially independent. All the issues associated with operating an efficient

TABLE 14.5 - WESTRAIL SERVICES

	1992-93	1993-94	1994-95
Kilometres of railway (a)-			
Route kilometres	5,583	5,583	5,583
Track kilometres	6,987	6,987	6,970
Kilometres run ('000)-			
Train	7,018	7,561	8,114
Road bus (b)	2,971	3,040	3,208
Passenger journeys ('000)-			
Rail	233	246	247
Road (b)	198	215	228
Tonnes carried ('000) (c)	26,523	27,726	29,317

(a) Excludes suburban rail, charter and tourist services. (b) In addition to its rail services, Westrail operates a system of road services for passengers and freight. (c) Paying goods only.

Source: Westrail

and reliable rail transport system are under review, including public safety.

An automatic gate system to improve safety at pedestrian level crossings has been implemented by Westrail. Priority has been given to areas where there has already been accidents or near-misses. The upgraded system will, when a train approaches, sound a warning, flash warning signal lights and the gates will close automatically. This will prevent pedestrians from crossing the tracks. Priority has also been given to level crossings close to shopping centres and schools.

Taxi Services

The Taxi Control Board was abolished on 10 January 1995 and the Department of Transport assumed responsibility for the administration of taxi services under the new Act (The Taxi Act 1994). The Taxi Industry Board was created to be a representative and strategically planned body for the taxi industry but has no administration functions. It is purely an advisory committee directly responsible to the Minister of Transport and does not rely on government funding for its operations. The revenue required is derived from income raised by fees and licenses etc. within the taxi industry.

**TABLE 14.6 - NUMBER OF LICENSED TAXI CARS
AS AT 14 AUGUST 1995**

<i>Type</i>	<i>Number</i>
METROPOLITAN AREA -	
Metered Taxis - unrestricted	974
Multi-purpose Area Restricted	46
Total	7
	1027
COUNTRY AREAS -	
Metered Taxis - Unrestricted	336
Multi-purpose	9
Total	345

Source: Department of Transport

Consideration for special community groups has seen the issuing of 46 Multi-purpose taxi licenses in the Perth Metropolitan area, an increase of 30 over the last 12 months. In 1994-95, \$2.24 million was expended on the Taxi User's Subsidy Scheme which caters for people with severe and permanent disabilities which prevent them from unaccompanied public transport use. Currently this scheme has 12,980 registered members throughout Western Australia.

Air Services

Western Australia's non-jet air services network was opened to competition in April 1995. The Department of Transport has the responsibility of monitoring and screening new competitors to establish their credibility.

The current non-jet network includes sixteen major centres and a number of pastoral stations in the Kimberley and carries approximately 10 per cent of all intrastate air service passengers. Communities which clearly require subsidisation to maintain basic access to essential services will still be subject to Government regulation.

It was thought that competition in a limited demand situation would not achieve significant net benefits for the communities involved. Based on this assumption entry to the non-jet network was restricted. However, drawing from the result of deregulation of interstate and intrastate jet routes which brought about substantial increases in patronage and fare discounts, the decision to open non-jet routes to competition was taken.

TABLE 14.7 - PASSENGER AND AIRCRAFT MOVEMENTS AT PRINCIPAL AIRPORTS

Airports	Passengers			Aircraft Movements (b)		
	1992	1993	1994p	1992	1993	1994p
Broome	119,181	123,082	162,384	2,700	2,643	3,575
Carnarvon	33,652	35,383	33,195	907	866	763
Derby	60,646	64,842	49,351	1,603	1,586	1,270
Geraldton	56,282	60,723	65,140	1,288	1,284	1,305
Kalgoorlie	75,222	89,657	98,168	1,550	1,658	1,733
Karratha	171,976	176,192	201,920	3,724	3,854	4,283
Kununurra	102,159	112,096	134,990	1,988	2,213	2,711
Learmonth	22,586	27,408	40,343	654	722	950
Newman	73,080	76,367	73,438	1,624	1,536	1,462
Perth-Paraburdoo	54,370	55,539	60,745	1,335	1,281	1,309
Perth-						
Internal (c)	1,908,765	2,126,368	2,447,162	21,463	23,569	26,156
International	897,290	1,001,063	1,120,214	5,907	7,119	7,362
Port Hedland-						
Internal	123,594	136,068	153,088	3,352	3,435	3,553
International	5,176	4,455	2,302	106	106	66

(a) Total of embarkation and disembarkation. From 1992, also includes passengers in transit. (b) Total of arrivals and departures. (c) Interstate and intrastate. From July 1 1993, includes international service traffic carried by the major Australian airlines over Australian flight stages.

Source: Federal Department of Transport

Shipping Services

Compared to the rest of Australia and the world, Western Australia's international container shipping volume is relatively small. International ports such as Singapore and Hong Kong each handle approximately 10 million containers annually. The Port of Fremantle is the largest general cargo facility in Western Australia and handled 189,300 containers during 1994-95.

The administration of major ports within Western Australia is shared by the Department of Transport, individual Port Authorities (separately constituted authorities established by an Act of Parliament) and private owners. On January 1 1994 the functions of the Department of Marine and Harbours were transferred to the Department of Transport.

In June 1995, the State Government announced that Stateships, which serviced the remote north-west and northern coasts of Western Australia, would cease operations.

TOURISM

Chapter 15

TOURISM

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Chapter 15

TOURISM

Western Australia is a unique tourist destination. The vast area of the State offers a wide variety of landscapes, climates and natural wonders which attracts increasing numbers of international and interstate visitors.

*Contribution by the
Western Australian
Tourism Commission*

Accommodation facilities cater for every type of visitor with major destinations offering establishments ranging from luxury resorts to backpacker hostels. International backpackers stay longer, do more, see more and spend more than other tourists. Backpacker visitors to the State are on the increase but are still below the numbers recorded for the rest of the country. However, backpackers tend to stay longer in Western Australia.

A tourism strategy to address issues such as shortages in accommodation and inconsistency in quality of services is currently being formulated. The number of hotels and motels with facilities increased by 2 per cent from 328 to 335 in 1994. However, the average number of rooms per establishment decreased from 45 to 44. The star grading of hotels and motels with facilities is based on the classification system used by members of the Australian Automobile Association. The gradings are allocated according to a point based system of amenities and facilities available to guests.

The major tourist areas in Western Australia are defined as: the Kimberley, Pilbara, Gascoyne, Golden Heartlands, the South West and the Perth Metropolitan Area. Each of these regions offers a diverse array of interesting and exciting tourist attractions.

Kimberley

The Kimberley region covers an area of 421,451 sq km (three times the size of England). The daytime temperature averages around 31 degrees Celsius and the 'wet season' is from January to March. Major towns within this area are Broome, Kununurra, Derby and Wyndham. Broome is the major centre of the pearl industry of Australia, with a production value of \$84 million in 1994 (Source: Pearl Producers Association).

The Ord River irrigation scheme sustains 60 different crops including bananas, melons, sweet corn, capsicum, onions and sugar cane and is centred near the township of Kununurra. The area contains diverse mineral deposits including diamonds, the Argyle Diamonds project being the largest diamond mine in the world.

TABLE 15.1 - TOURIST ACCOMMODATION (a)

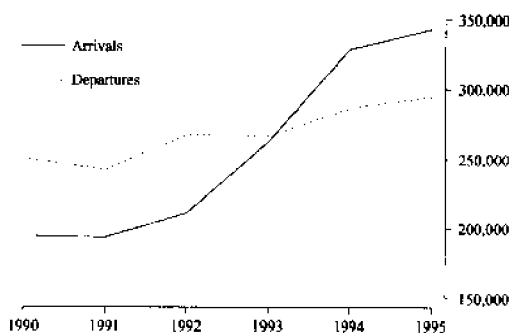
31 December 1994

Reference: Catalogue No. 8635.5

	<i>Perth Statistical Division</i>	<i>Rest of State</i>	<i>Western Australia</i>
HOTELS AND MOTELS, WITH FACILITIES (b)			
Establishments	86	249	335
Guest rooms	6,711	8,023	14,734
Bed spaces	17,064	21,190	38,254
HOTELS AND GUEST HOUSES, WITHOUT FACILITIES (b)			
Establishments	8	121	129
Guest rooms	313	2,469	2,782
Bed spaces	462	4,166	4,628
CARAVAN PARKS (c)			
Establishments	34	281	315
Capacity	4,073	25,552	29,625
HOLIDAY FLATS, UNITS AND HOUSES (b)			
Letting entities	30	76	106
Units	1,193	1,109	2,302
Bed spaces	4,971	5,930	10,901

(a) Hotels, motels and guest houses must have breakfast available for guests. Caravan parks must provide powered sites and toilet, shower and laundry facilities. Holiday flats etc. are mainly self-contained and do not have breakfast available. (b) Establishments providing predominantly short term accommodation (i.e. periods less than two months). (c) Establishments providing short term or long term accommodation.

DIAGRAM 15.1
SHORT TERM OVERSEAS VISITOR ARRIVALS AND RESIDENT
DEPARTURES BY AIR, WESTERN AUSTRALIA
1990-1995



Source: ABS Microfiche PMTR 0031

ASSESSMENT OF TOURISM OUTLOOK FOR WESTERN AUSTRALIA

Contributed by the WA Tourism Commission

Tourism is a major export dollar earner and provides significant social and economic benefits to the State. For every additional 35 interstate and international tourists one new job is created. Around 9,000 new jobs were created in tourism related industries in the past year (up to May 1995) assisted by the growth in visitors.

Western Australians are the biggest users of the State's tourist facilities, undertaking 4.7 million trips and generating 43 per cent of the State's visitor expenditure.

The Interstate visitor numbers account for 7 per cent of the visitor trips in Western Australia and 27 per cent of visitor expenditure. Figures released by the Bureau of Tourism Research (BTR) indicate that for the period October 1993 to September 1994 total interstate trips increased 2.9 per cent Australia wide. However, there was a 30 per cent increase in trips to Western Australia for the same period.

The international visitor market shows the greatest opportunity and accounts for 8 per cent of the States visitors and 2.9 per cent of the States total visitor expenditure.

Asia is Western Australia's largest market with 36 per cent of visitors, followed by UK/Ireland with 21 per cent and Europe accounting for 16 per cent. Other important inbound markets are New Zealand with 8 per cent and Japan with 7 per cent of visitors. South Africa, India and China have been identified as the emerging markets for the industry.

Special events are one of the fastest growing forms of leisure and tourism in Western Australia. The involvement of major events and associated media coverage, particularly television, generates significant positive publicity. The State has a calendar of regular events including, the Telstra Rally Australia (motorsport), Hopman Cup (tennis), Heineken Classic (Golf) and many others.

Western Australia is also creating for itself a strong market share in the convention tourism sector. Perth's geographic proximity to SouthEast Asia remains a key advantage in the highly competitive convention and incentive travel markets.

The Kimberley offers many tourist attractions such as the Wolfe Creek crater (one of the World's biggest meteorite craters), Lake Argyle (which holds nine times more water than Sydney Harbour), Bungle Bungle (located in the Purnululu National Park), and Mitchell Falls.

Pilbara

The Pilbara extends over almost 444,000 sq km (approximately 20 per cent of Western Australia). Coastal towns such as Dampier, Karratha, and Port Hedland are well known as the ports servicing the huge iron ore industry of the region. The waters surrounding these centres offer fishing and diving activities which attract many tourists.

Chichester National Park is the home of Millstream a huge green oasis surrounded by a vast expanse of wildflowers and which is a remnant of an ancient rain forest. Pastoral stations offer accommodation for those tourists who wish to experience life on the land in the authentic outback. The historic towns, coastline, mining operations and the spectacular gorge country all contribute to make this region a major tourist centre.

Gascoyne

The Gascoyne covers 140,912 sq km, enjoys 320 days of sunshine per year and an average temperature of 26 degrees Celsius. Major tourist destinations in the Gascoyne region are: Exmouth, Carnarvon, Shark Bay and Coral Bay, all of which offer some of the State's best recreational fishing.

Ningaloo Reef Marine Park has become a focal point for scientists and tourists alike who come to witness the whale shark phenomenon which occurs after the first full moon in March. This event occurs when millions of small schooling fish amass in the plankton rich waters of the reef attracting whale sharks and other marine predators.

Located in the remote east of the Gascoyne is the world's largest rock, Mt Augustus, which rises to a height of 1,106 metres above sea level. This rock is approximately 8 kilometres long and covers an area of 4,795 hectares but unlike Uluru, is covered with vegetation. Mt Augustus is twice the size of Uluru and is three times older (the granite beneath its surface is between 1,650 and 1,900 million years old). Due to its isolation, this monocline (the result of sand accumulation which is eventually uplifted and folded) is one of the areas least known tourist attractions.

Heartlands

This region covers sites from the historic towns of the Avon Valley and the unique township of New Norcia (founded and still operated by the Benedictine Monks) to the Kalgoorlie Goldfields. The township of Northam is host to Australia's greatest white water classic, the Avon Descent, which attracts competitors and tourists from all over Australia and the world.

Two of the most well known tourist destinations of this area are: Wave Rock (a 15m high wave frozen in granite) and the Pinnacles (limestone pillars emerging from the flat, sandy almost desertlike terrain). Winter rains bring the usually arid landscape to life each September, carpeting the entire area with a spectacular display of wildflowers.

Kalgoorlie/Boulder is the heritage capital of Western Australia, boasting Australia's only legal Bush Two Up School. Gold was first discovered in this region in 1893 and the area has always been a popular tourist destination. The recent boom in the gold industry has resulted in a change from underground to 'open cut' mining. The Kalgoorlie Super Pit is now a major tourist attraction.



Wave Rock

South West

The South West region stretches from Mandurah (74 km south of Perth) to Esperance in the far southeastern corner of Western Australia. The region has an abundance of diverse tourist features. The area offers spectacular scenery and coastline which attracts local and international tourists and is recognised as a world class surfing venue.

Western Australia is famous for its wines and there are over 85 wineries in this region. Wines produced from the Margaret River and Mt Barker regions are world renowned. The annual concert at the Leeuwin Estate winery is a well known cultural event within the State.

Further inland the small country towns of Nannup, Balingup and Bridgetown are centres for 'cottage' industries. Furniture, woodwork, pottery and folk art are unique to the area and create tourist interest.

Pemberton and Manjimup are famous for their majestic Karri forests. Many of these trees are hundreds of years old and are unique to Western Australia. Sightseeing in these areas is a popular item on the tourist agenda.

Located further south is the town of Albany which became the first white settlement in Western Australia in 1826. The last active whaling station in Australia which ceased operation in 1978 was located in Albany. This site has now become a whaling museum and guided tours of the station are provided. Whale watching cruises assisted by spotter planes, to ensure sightings, are available from Albany to Esperance.

Perth Metropolitan Area

Perth is a sophisticated and cosmopolitan city. Within walking distance of the city centre is Northbridge which is known for its restaurants, alfresco cafes and nightclubs.

There are more than 50 kilometres of beaches within the Perth Metropolitan Area, and along the banks of the Swan River are many historical buildings and internationally acclaimed wineries.

Kings Park covers an area of 400 hectares and overlooks the City of Perth. The Kings Park Wildflower Festival is the largest held in Australia and extended wildflower tours also depart from Perth to various locations throughout Western Australia.

The port of Fremantle is situated 18 km south west of Perth and is rich in history, with magnificently restored Edwardian and Victorian architecture. The Round House, Fremantle Prison and the Fremantle Maritime Museum are examples of buildings erected by convict labour which have been restored to their former glory and remain a link with the City's past. Although not often considered as tourists, United States defence personnel who regularly visit Fremantle on recreation leave, spend millions of

dollars over the relatively short time they are in port. Twenty five minutes by ferry from Fremantle is Rottnest Island which offers visitors a variety of accommodation, excellent fishing and wildlife unique to the Island.

PUBLIC FINANCE

Chapter 16

PUBLIC FINANCE

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Chapter 16

PUBLIC FINANCE

Public Finance in 1993-94

Within Western Australia, there are three levels of government — Commonwealth, State and Local — which collectively constitute the public sector. The combined outlays of the State and Local governments were \$7,897 million in 1993-94, resulting in a surplus of \$200 million. The major outlays of State and Local government were for:

- education (\$1,844 million);
- health (\$1,315 million);
- public debt (\$1,027 million); and
- transport and communications (\$875 million).

In 1993-94, total outlays of State authorities were \$7,437 million. Grants received from the Commonwealth totalled \$3,292 million, an increase of 2.3 per cent over the previous year.

Commonwealth-State Financial Relations The major institutions assisting in the management of Commonwealth funding to State (in this chapter, "States" or "State Governments" should be taken to include Northern Territory and ACT) Governments are:

- the Premiers' Conference;
- the Commonwealth Grants Commission; and
- the Australian Loan Council.

Premiers' Conference The annual Premiers' Conference determines the total amount of general revenue assistance and the share of each of the States. Although these payments are at the Commonwealth's discretion, they are subject to negotiation between the Commonwealth and States at the Conference.

Commonwealth Grants Commission The Commonwealth Grants Commission makes recommendations on the size of financial assistance grants to each State based on the value of its calculated relative index which is updated annually. The calculation of financial assistance grants for each state is dependent on the Grants Commission *per capita* funding relativities and the States' population share for that period. This

WA State Budget Process

Contribution by the State Treasury Department

The annual budget process has been evolving over recent years in response to reform measures and changes in the public sector.

The budget process requires agencies to provide State Treasury, not only with the details of revenue and expenditure estimates for the budget year, but also projections for the next four years.

The integration of forward estimates heralded a change that focused on a formal system of three, and subsequently, four year rolling estimates to extend the planning horizon for government expenditure priorities.

By integrating the four year forward estimates with the annual budget process, the Government and its agencies will have a better opportunity to plan their budget positions, achieve policy objectives and gain a clearer understanding of the factors influencing the cost of service delivery.

In brief, the budget preparation work cycle involves:

- Treasury revising forward estimates of revenue and updating expenditure estimates for parameter changes and policy shifts;
- Treasurer and Cabinet Estimates Committee (CEC) determining broad budget strategy for the forthcoming year consistent with the Government's medium term financial plan;
- The Cabinet Sub-Committee on Public Sector Management referring the outcomes of its deliberations to the CEC on an ongoing basis to enable budgetary impacts to be taken into account;
- Ministers submitting proposals for enhancements and savings;
- Assessment of the budget implications of Premiers' Conferences/Loan Council and the Federal budget; and
- Treasurer and CEC finalising the budget for cabinet approval, and Treasury preparing budget papers and appropriate legislation.

WA State Budget Timetable

The key events in the annual budget process, including the integration of the forward estimates, are as follows:

June

Presentation of the State Budget to Parliament with supporting Budget Bills and Budget Papers numbers 1-5.

July

Year end accounting and reporting on prior year budget outcomes.

August

Budget Papers numbers 6 and 7 presented to Parliament. Parliamentary Estimates Committees commence hearings.

September**-December**

Update forward estimates for policy and parameter shifts and the addition of the fourth estimate year. Presentation of revised forward estimates to government. Budget Bills passed.

January

Major review of Consolidated Fund budget out-turn projections based on six month actuals.

February

Treasurer and CEC consideration of the budget strategy for the next four financial years, the current year budget performance and the forward estimates.

March

Ministers to discuss changes to agency budgets. CEC and ministerial deliberations on the final shape of the next year's Consolidated Fund budget, Premier's Conference and Loan Council meeting.

April

Finalise budget and forward estimates, update for policy and parameter changes.

May

Cabinet approval to budget. Finalise printing of budget papers and budget bills.

**TABLE 16.1 – COMMONWEALTH GENERAL AND SPECIFIC
PURPOSE PAYMENTS FOR WESTERN AUSTRALIA AND
AUSTRALIA(a), 1993-94
(\$ million)**

<i>Payments</i>	<i>Western Australia</i>	<i>Australia</i>
General purpose payments—		
Revenue	1,535.3	14,355.2
Capital	42.7	542.9
<i>Total</i>	<i>1,578.0</i>	<i>14,898.1</i>
Specific purpose payments—		
Current	1,412.1	13,697.7
Capital	1,274.3	2,983.1
<i>Total</i>	<i>1,686.4</i>	<i>16,680.8</i>
Total payments	3,264.4	31,578.9

(a) Excludes direct Commonwealth payments to local authorities.
Source: Commonwealth Final Budget Outcome 1993-94

relative index is based on the ability of States' to provide comparable services.

The provision of these services is dependent on States' capacity to raise taxes and other revenues, levels of Commonwealth recurrent tied grants and the actual costs of providing these services by the States.

Australian Loan Council

The Australian Loan Council functions chiefly as a monitoring body for government borrowings. Under new arrangements, which commenced in 1993-94, its emphasis is on providing the financial markets with information to properly assess the financial position of governments, and rate their debt accordingly. It has the power to make modifications on States' proposed loan allocations but the arrangements are not intended to be restrictive. Since 1993-94, approvals have been given to all nominations submitted by the States for Loan Council Allocations.

Major Issues

The Commonwealth has agreed to maintain the real *per capita* value of the pool of financial assistance grants and will provide additional payments to the States from 1997-98, conditional on the implementation of National Competition Policy Agreements.

For the second year running, the Commonwealth Grants Commission recommended a reduction of more than \$50 million in Western Australia's share of financial assistance grants. Unlike 1994-95 period, there will not be a special revenue assistance fund in the 1995-96 financial year to offset this decrease.

The major reasons for this reduction were:

- Western Australia's strong economic growth compared to other States, which increased its relative capacity to collect revenue;
- increases in offshore petroleum royalties;
- revisions to Aboriginal population data; and
- corrections to assessments for mining revenues.

However, in spite of the reduced funding, Western Australia still has a higher *per capita grant* than the average of the States. This reflects:

- the higher cost of providing services, due to the relatively high number of school students in Western Australia;
- the cost of servicing small widely separated communities in the State; and
- the special needs of the State's large Aboriginal population.

It is the Grants Commission's aim to apportion the funds in such a way so as to give each State the capacity to provide the same standard of services at an average level of efficiency, without having to impose different rates of taxes and charges.

The Commonwealth has revised arrangements for the indexation of Specific Purpose Payments to the States:

A new five year arrangement for the provision of indexed Special Purpose Payments for Medicare commenced in 1993-94. Because the arrangement, as originally formulated, would have resulted in significantly reduced allocations to NSW and Victoria, the other States and the Commonwealth will forego some of their allocation to provide extra funding to NSW and Victoria.

The funding formula for Identified Road Grants will also change over a period of three years. It is expected that the allocation will eventually have the same distribution as the Grants Commission's *per capita* funding relativities. However, the net effect of this will be partially offset by increases in Western Australia's population, leading to an increase in funding.

An agreement has been reached, in principle, to reforms in public housing. The existing agreement is to be re-negotiated with greater flexibility given to the States in using the Commonwealth funds for housing assistance measures. An undertaking to investigate major reforms in health and community services has also been agreed to.

Commonwealth Financial Assistance Commonwealth Government payments to the State Governments may be classified under two major headings - general purpose payments and specific purpose payments.

General purpose payments General purpose payments provide general budgetary assistance and the States are free to determine the spending of these monies according to their own budgetary priorities.

Specific Purpose Payments Specific purpose payments are generally a means of meeting the objectives and priorities of Commonwealth Budget programs. They are provided subject to certain conditions, for example, the Commonwealth specifying the purpose for which the funds may be spent; the States being required to contribute some specified amount of their own funds to the program to qualify for the assistance.

Specific purpose current payments to Western Australia for 1993-94 amounted to \$1,412 million. The major payments were for schools (\$224 million), higher education (\$305 million) and Medicare base grant (\$318 million). Specific purpose capital payments to Western Australia in 1993-94 amounted to \$274 million with the largest amounts allocated to roads (\$77 million) and public housing (\$74 million).

**TABLE 16.2 - OUTLAYS BY PURPOSE OF WESTERN AUSTRALIA
STATE GOVERNMENT
(\$ million)
Reference Catalogue No. 5512.0**

<i>Item</i>	<i>r1991-92</i>	<i>r1992-93</i>	<i>1993-94</i>
General public services	607	410	460
Defence	—	—	—
Public order and safety	518	510	530
Education	1,671	1,815	1,843
Health	1,233	1,248	1,302
Social security and welfare	337	349	342
Housing and community amenities	282	391	350
Recreation and culture	110	124	141
Fuel and energy	140	155	119
Agriculture, forestry and fishing	172	154	173
Mining, manufacturing and construction	50	43	56
Transport and communications	695	882	740
Other economic affairs	255	170	290
Other purposes	1,226	1,223	1,091
Total	7,296	7,475	7,437

State Government Finance The data in this section relate to the financial activities of the Government of Western Australia. It includes those statutory authorities, boards, commissions and corporations, and

**TABLE 16.3 - STATE AUTHORITIES
RECEIPTS AND FINANCING TRANSACTIONS CLASSIFIED
BY ECONOMIC TRANSACTIONS FRAMEWORK
(\$ million)**

Reference: Catalogue No. 5512.0

<i>Item</i>	<i>r1991-92</i>	<i>r1992-93</i>	<i>1993-94</i>
Revenue—			
Taxes, fees, fines	1,925	2,010	2,376
Net operating surpluses of public trading enterprises	771	831	863
Interest received	236	138	153
Other revenue	538	580	626
Grants received	3,071	3,217	3,292
<i>Total revenue</i>	<i>6,541</i>	<i>6,776</i>	<i>7,309</i>
Financing transactions—			
Net Advances received	-254	-197	-135
Net borrowing	1,345	774	-45
Increase in provisions	261	251	286
Other financing transactions	-597	-129	21
<i>Total financing transactions</i>	<i>756</i>	<i>699</i>	<i>128</i>
Total funds available	7,296	7,475	7,437

incorporated bodies (other than financial enterprises) in which the State Government or its agencies have a controlling interest.

Western Australia government outlays decreased from \$7,475 million in 1992-93 to \$7,437 million in 1993-94.

Table 16.2 provides a breakdown of Government expenditure by purpose. Education is the largest single area of expenditure representing 24.8 per cent of total outlays in 1993-94. The next largest areas of expenditure are Health (17.5 per cent) and Transport and communications (10.0 per cent).

Table 16.3 shows that the main components of the receipts of Western Australian State authorities are grants, taxation, and net operating surpluses of public trading enterprises.

In 1993-94 total State government revenue increased by 7.9 per cent to \$7,309 million. Of this, \$2,376 million (32.5 per cent) was raised in the form of taxes, fees or fines, with \$3,292 million (45.0 per cent) being received as grants.

The major items contributing to total taxes, fees and fines were taxes on financial and capital transactions which raised \$588 million (24.7 per cent); payroll tax \$549 million (23.1 per cent); and franchise taxes on petroleum, tobacco and liquor \$416 million (17.5 per cent).

Local Government Finance

The financial powers of local government authorities, including loan raising, the levying of loan rates, the expenditure of loan monies and the repayment of loans, are derived principally from

the *Local Government Act 1960*, the main provisions of which are outlined in Chapter 3 — Government.

Total outlays of Local Authorities were \$652 million in 1993-94, with the major components being transport and communications (\$226 million) and recreational facilities and services (\$166 million). Total revenue was \$703 million, which was principally comprised of taxes, fees and fines (\$448 million) and grants (\$209 million).

Loan Transactions

Loans are raised mainly from banks, insurance companies and superannuation funds. A number of local authorities also raise loans through the Western Australian Treasury Corporation. The State Government exercises a measure of supervision over the loan transactions of local government authorities and, where a loan is repayable in full at maturity, maintains the necessary sinking fund at the Treasury.

References

ABS Publications

Classification Manual For Government Finance Statistics (1217.0)
Government Finance Statistics, Australia (5512.0)
Taxation Revenue, Australia (5506.0)

Other Publications

Commonwealth Final Budget Outcome 1993-94
Western Australia 1995-96 Budget Paper No. 5

LABOUR

Chapter 17

LABOUR MARKET

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LABOUR MARKET

The Labour Force

The labour force is defined as persons aged 15 years and over who are either employed or available for work. Characteristics are obtained from the Labour Force Survey which is a component of the Monthly Population Survey, conducted by the Australian Bureau of Statistics.

Each month the survey records information from 65,000 individuals throughout Australia. A random sample is taken of 29,000 private dwellings (4,000 in Western Australia) and a number of other dwellings such as hotels and caravan parks.

The survey is conducted by trained interviewers, generally during the second and third weeks of each month and is designed to enable analysis of the labour force by a number of characteristics, including sex, age, birthplace, occupation, hours worked and duration of unemployment.

The Labour Force Survey is a major economic indicator and is essential to governments, employer associations, trade unions and other organisations for effective monitoring of the performance of the labour force and the overall economy.

Two important labour force indicators are:

- Participation rate: the number of persons in the labour force expressed as a percentage of the civilian population aged 15 years and over; and
- Unemployment rate: the number of unemployed persons expressed as a percentage of the labour force.

Table 17.1 shows the number of males seeking work decreased by nearly 6,000 between August 1994 and August 1995. The number of unemployed females fell from 27,300 to 26,600.

The seasonally adjusted unemployment rate for males decreased from 8.1 per cent in August 1994 to 6.7 per cent in August 1995. The female unemployment rate fell from 7.8 per cent to 7.2 per cent over the same period.

**TABLE 17.1 - LABOUR FORCE STATUS (AGED 15 YEARS AND OVER)
AUGUST
(000 persons)
Reference: Microfiche GRP100 Table A1**

<i>Labour force status</i>	1993	1994	1995
MALES			
Civilian population	665.9	655.8	669.9
Labour force—	513.8	502.2	508.5
Employed—			
full-time	419.7	415.3	425.9
part-time	48.3	47.2	48.8
Unemployed	45.8	39.7	33.7
Unemployment rate (per cent)—			
original	8.9	7.9	6.6
seasonally adjusted	9.1	8.1	6.7
Participation rate (per cent)	77.2	76.6	75.9
FEMALES			
Civilian population	665.9	661.6	675.9
Labour force—	350.2	358.5	378.1
Employed—			
full-time	168.9	175.0	187.3
part-time	149.6	156.2	164.2
Unemployed	31.7	27.3	26.6
Unemployment rate (per cent)—			
original	9.1	7.6	7.0
seasonally adjusted	9.5	7.8	7.2
Participation rate (per cent)	52.6	54.2	55.9

Western Australia's participation rate (65.9 per cent) remains the highest of all States. As at August 1995 the participation rate for males was 75.9 per cent and for females was 55.9 per cent.

Teenage Unemployment

Table 17.2 shows the unemployment rate for the 15-19 year age group has decreased from 17.0 per cent in August 1994 to 15.1 per cent in August 1995. The only age group which showed a rise in unemployment is the 20-24 age group with an increase of 1 per cent.

The Labour Force Survey estimated there were 126,739 people in the 15-19 year age group in Western Australia in August 1995; of these 34,191 were employed full-time and 33,953 worked part-time. A total of 12,152 were unemployed. A total of 46,444 were not in the labour force.

The Composition of the Labour Force

The composition of the labour force (Table 17.3) differs for males and females. Of the estimated 474,742 employed males, 21.6 per cent are employers or own account workers and 77.9 per cent are employees. Of the estimated 351,482 employed females, 14.1 per cent are employers or own account workers and 84.8 per cent are employees.

**TABLE 17.2 - LABOUR FORCE UNEMPLOYMENT RATES BY AGE
TREND SERIES, AUGUST
(per cent)**

Reference: Microfiche GRP930 Table SR3A

Age group	1993	1994	1995
WESTERN AUSTRALIA			
15 - 19	21.5	17.0	15.1
20 - 24	13.4	11.0	11.1
25 - 34	8.5	6.9	6.3
35 - 44	6.0	5.9	5.2
45 - 54	5.6	5.8	3.9
55 and over	6.9	6.5	4.5
Overall rate	9.0	7.8	6.8
AUSTRALIA			
15 - 19	23.0	20.3	20.0
20 - 24	16.1	13.9	11.1
25 - 34	10.2	8.3	7.7
35 - 44	7.8	6.7	6.2
45 - 54	6.9	6.4	4.9
55 and over	9.9	7.5	6.5
Overall rate	10.7	9.2	8.1

**TABLE 17.3 - CIVILIAN POPULATION (AGED 15 YEARS AND
OVER): EMPLOYMENT STATUS,
AUGUST
('000 persons)**

Reference: Microfiche GRP700 Table E27

Employment status	1993	1994	1995
MALES			
Employer	27.5	26.5	30.5
Own Account Workers	65.3	67.1	72.0
Employees	354.7	366.2	369.6
Contributing Family Workers	3.7	2.7	2.6
Unemployed	44.3	39.7	33.7
Not in labour force	149.2	153.6	161.4
Total	644.7	655.8	669.9
FEMALES			
Employer	14.0	12.2	15.2
Own Account Workers	29.6	33.9	34.4
Employees	262.7	279.7	297.9
Contributing Family Workers	4.2	5.4	3.9
Unemployed	31.0	27.3	26.6
Not in labour force	309.0	303.1	297.8
Total	650.5	661.6	675.9

Employment by Industry

Over the period August 1994 to August 1995, the percentage distribution of employment between industries has varied only slightly. Table 17.4 depicts significant increasing employment in Retail Trade, Manufacturing, and Finance, Property and Business Services.

Employment continued to be dominated by four major industries: Retail Trade, Manufacturing, Property and Business and Community services. These industries employed 364,100 people or 44.1 per cent of all employed persons in Western Australia.

**TABLE 17.4 - EMPLOYED PERSONS BY INDUSTRY
(AGED 15 YEARS AND OVER), MAY
('000 persons)**

Reference: Catalogue No. 6203.0

<i>Industry division</i>	<i>1994</i>	<i>1995</i>
Agriculture, forestry and fishing	48.9	51.0
Mining	32.9	26.7
Manufacturing	82.1	85.9
Electricity, gas and water supply	9.5	10.0
Construction	68.1	68.5
Wholesale trade	45.3	42.8
Retail trade	110.0	120.3
Accommodation, cafes and restaurants	35.0	37.8
Transport and storage	38.9	34.4
Communication services	11.3	11.9
Finance and insurance	26.9	27.8
Property and business services	77.0	84.3
Government administration and defence	29.1	35.3
Education	58.4	61.1
Health and community services	70.1	73.6
Cultural and recreational services	19.9	21.6
Personal and other services	30.2	33.4
Total all industries	793.7	826.2

Average weekly hours worked

Since 1948, practically all employees in Australia have had a standard working week of 40 hours or less. However, the number of hours constituting a full week's work (excluding overtime) differs between industries.

The average weekly hours worked by employees over all industries in August 1995 was 36.0 hours per week. The lower average weekly hours worked by females (shown in Table 17.5), can be largely attributed to the much greater proportion of females working part-time. Females worked an average of 28.1 hours per week compared with an average for males of 41.8 per week.

The Mining industry is traditionally an area where longer hours are worked. The average weekly number of hours worked in August 1995 in mining was 45.6 hours per week.

**TABLE 17.5 – EMPLOYED PERSONS: AVERAGE WEEKLY HOURS
WORKED BY INDUSTRY (a)**

AUGUST 1995

Reference: Microfiche GRP200 Table E3

<i>Industry</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
Agriculture, forestry and fishing	46.8	26.8	40.9
Mining	47.8	32.3	45.6
Manufacturing	41.0	28.6	38.1
Electricity, gas and water supply	37.3	38.7	37.5
Construction	43.2	22.2	39.9
Wholesale trade	43.8	33.1	40.3
Retail trade	38.4	25.8	31.8
Accommodation, cafes and restaurants	38.9	26.3	31.2
Transport and storage	42.6	32.8	40.8
Communication services	38.3	28.0	34.8
Finance and insurance	43.1	31.1	36.6
Property and business services	44.8	29.0	38.1
Government administration and defence	37.9	29.3	34.7
Education	38.7	31.1	33.6
Health and community services	40.1	27.6	30.1
Cultural and recreational services	38.7	24.7	32.3
Personal and other services	6.9	27.3	32.3
All industries	41.8	28.1	36.0

(a) The estimates refer to actual hours worked, not hours paid for.

Labour Force Supplementary Surveys

There are in excess of 20 supplementary surveys which measure labour force, social and demographic characteristics of households. The supplementary surveys are conducted annually, or less frequently depending on statistical demand, and are grouped as Educational and Other topics.

Educational topics include:

- Labour force status and educational attainment;
- Transition from education to work;
- How workers get their training.

Other topics include:

- Job search experience of unemployed persons;
- Weekly earnings of employees;
- Employment benefits.

More detailed information relating to supplementary surveys is available from ABS Information Services on (09) 360 5140.

Job Vacancies

Job vacancy statistics are produced from a quarterly sample survey of 5,000 employers throughout Australia (500 in Western Australia).

A job vacancy is a job available for immediate filling on the survey date and for which recruitment action had been taken by the employer.

Recruitment action includes efforts to fill vacancies by advertising, by factory notices, by notifying employment agencies or trade unions and by contacting, interviewing or selecting applicants already registered with the organisation. Excluded are jobs available only to persons already employed by the organisation.

In May 1995, Western Australia had 6,200 job vacancies compared with 4,400 in 1994. The largest number of job vacancies recorded by the survey since it commenced in 1983, was 7,400 in February 1989.

Wages and Earnings

Average Weekly Earnings

Statistics of average weekly earnings of employees are produced quarterly and are based on employment and earnings information obtained from a sample survey of employers. They relate to earnings for a single weekly pay period ending near the middle of each quarter.

Earnings are taken to be gross earnings for the pay period, before taxation and any other deductions such as superannuation. Statistics are produced for average weekly ordinary earnings (including all allowances, payments, commissions etc), for full-time adults; average weekly total earnings (ordinary earnings plus overtime), for full-time adults; and average weekly total earnings for all employees.

During the decade, average weekly earnings, in nominal terms, increased steadily and comparably for Western Australia and Australia. Western Australian average weekly earnings for all employees in May 1985 were \$329.00, slightly below the Australian average of \$344.10. By May 1995 the Western Australian average had increased to \$539.90 (an increase of 64.1 per cent or an annual compound rate of 5.1 per cent over the decade), while the Australian average had increased to \$548.10 (an increase of 59.3 per cent and an annual compound rate of 4.8 per cent).

In this period, the Consumer Price Index for Perth increased by 65.6 per cent which suggests that real incomes for Western Australians in this context declined slightly during the decade.

Table 17.6 shows the large difference between male and female average weekly earnings. In May 1995, average total earnings for all male employees were 62.6 per cent higher than for females. Much of this discrepancy can be attributed to the large proportion of females who work in part-time jobs. In May 1995, 50.8 per cent of females were employed in jobs other than in full-time adult employment, compared with only 21.4 per cent of males.

TABLE 17.6 - AVERAGE WEEKLY EARNINGS OF
EMPLOYEES (ORIGINAL SERIES)
MAY (\$)

Reference: Catalogue No. 6302.0

Year	Full-time adult employees		All employees
	Ordinary earnings	Total earnings	Total earnings
MALES			
1990	567.20	612.60	562.00
1991	613.90	654.10	597.60
1992	635.70	682.10	608.60
1993	640.80	699.40	617.80
1994	663.70	717.00	622.70
1995	701.80	764.20	656.60
FEMALES			
1990	465.10	477.60	341.30
1991	497.20	507.80	366.50
1992	522.50	532.70	379.70
1993	507.90	519.50	364.70
1994	524.10	539.10	384.70
1995	541.80	557.40	403.90
PERSONS			
1990	530.70	564.40	453.90
1991	573.80	603.80	489.10
1992	595.10	628.60	500.60
1993	594.50	636.70	496.10
1994	612.30	651.50	507.70
1995	645.80	691.90	539.90

Over the period 1990 to 1995, average weekly total earnings for females increased at a slightly higher rate (18.3 per cent) than for males (16.8 per cent).

Table 17.7 shows that employees in the Mining industry had the highest average weekly earnings of any sector in May 1995. Female earnings are consistently lower than male earnings in all industries, and in the Finance and insurance industry, on average, males earn 57 per cent more than females.

Labour Costs

Labour costs are those costs, paid by the employer, associated with the employment of labour. Details of major labour costs, such as earnings, payroll tax, superannuation, workers compensation and fringe benefits tax, are collected through an annual survey of approximately 500 employers in the public and private sectors (Tables 17.8 and 17.9).

With the exception of superannuation, the composition of major labour costs remained relatively constant in both the public and private sectors between 1988-89 and 1990-91. The major labour cost in both sectors was employee earnings, accounting for

TABLE 17.7 - AVERAGE WEEKLY EARNINGS OF EMPLOYEES BY INDUSTRY (a), MAY 1995 (\$)
Reference: Catalogue No. 6302.0

Industry	Full-time adult employees total earnings	
	Males	Females
Mining	1,130.50	787.90
Manufacturing	694.70	514.60
Electricity, gas and water supply	793.80	584.00
Construction	963.00	707.70
Wholesale trade	614.60	464.50
Retail trade	590.30	439.30
Accommodation, cafes and restaurants	504.90	463.10
Transport and storage	756.20	509.60
Communication services	778.70	664.90
Finance and insurance	760.90	519.20
Property and business services	771.50	559.80
Government administration and defence	678.10	597.50
Education	766.00	616.20
Health and community services	769.90	578.40
Cultural and recreational services	678.50	554.50
Personal and other services	680.80	544.40
Total industries (b)	764.20	557.40

(a) From August 1994 industry information is classified according to the Australian and New Zealand Standard Industrial Classification. (b) Excludes Agriculture, forestry and fishing.

TABLE 17.8 - MAJOR LABOUR COSTS
Reference: Catalogue No. 6348.0

Type of cost	1990-91		1991-92		1993-94	
	\$m	%	\$m	%	\$m	%
PRIVATE SECTOR						
Total earnings	7,737	89.6	7,781	89.7	9,932	89.4
Other—						
Payroll tax	319	3.7	308	3.6	361	3.3
Workers' compensation	167	1.9	149	1.7	220	2.0
Superannuation	326	3.8	357	4.1	500	4.5
Fringe benefits tax	81	0.9	77	0.9	98	0.9
Total other	893	10.4	891	10.3	1,179	10.6
Total	8,631	100.0	8,672	100.0	11,111	100.0
PUBLIC SECTOR						
Total earnings	4,544	91.5	4,848	90.8	5,147	92.0
Other—						
Payroll tax	101	2.0	99	1.9	101	1.8
Workers' compensation	75	1.5	72	1.4	88	1.6
Superannuation	229	4.6	307	5.8	241	4.3
Fringe benefits tax	16	0.3	15	0.3	16	0.3
Total other	421	8.5	494	9.2	446	8.0
Total	4,965	100.0	5,342	100.0	5,593	100.0

TABLE 17.9 - MAJOR LABOUR COSTS PER EMPLOYEE
Reference: Catalogue No. 6348.0

Type of cost	1990-91		1991-92		1993-94	
	\$	%	\$	%	\$	%
PRIVATE SECTOR						
Total earnings	23,806	89.6	25,458	89.7	25,850	89.4
Other—						
Payroll tax	982	3.7	1,009	3.6	940	3.3
Workers' compensation	515	1.9	487	1.7	572	2.0
Superannuation	1,004	3.8	1,167	4.1	1,301	4.5
Fringe benefits tax	248	0.9	253	0.9	256	0.9
Total other	2,749	10.4	2,917	10.3	3,069	10.6
Total	26,555	100.0	28,375	100.0	28,918	100.0
PUBLIC SECTOR						
Total earnings	28,316	91.5	30,730	90.8	34,490	92.0
Other—						
Payroll tax	631	2.0	628	1.9	676	1.8
Workers' compensation	468	1.5	457	1.4	589	1.6
Superannuation	1,428	4.6	1,949	5.8	1,616	4.3
Fringe benefits tax	99	0.3	96	0.3	108	0.3
Total other	2,626	8.5	3,131	9.2	2,990	8.0
Total	30,942	100.0	33,861	100.0	37,480	100.0

approximately 90 per cent of total labour costs. The cost of providing superannuation continued to rise in line with government policy, which encourages employers to become more responsible for the provision of adequate superannuation coverage for their employees. In 1991-92, superannuation accounted for 8.3 per cent of labour costs in the public sector.

It is important to note that owing to differences in the compilation of superannuation statistics, no direct comparisons can be made between public and private sector superannuation costs.

Industrial Disputes

Industrial disputes statistics relate only to disputes which involve stoppages of ten working days or more at the establishment where the stoppage occurred. The effects these disputes have on other establishments, such as stand downs because of lack of materials, disruption of transport services, power cuts etc., are not included.

The number of industrial disputes and the number of working days lost due to industrial dispute has decreased over the last few years. The number of industrial disputes in 1994 was compared with 134 disputes in 1992. The number of working days lost per thousand employees was in 1994 compared with 53.6 in 1992.

Details of stoppages are obtained primarily from the Department of Industrial Relations, trade journals, publications, newspapers and the employers and trade unions involved in the dispute.

References

- ABS publications*
- Average Weekly Earnings, States and Australia (6302.0)
 - Award Rates of Pay Indexes, Australia (6312.0)
 - How Workers Get Their Training (6278.0)
 - Labour Costs, Australia (6348.0)
 - The Labour Force, Australia (6203.0)
 - Labour Statistics (6101.0)

*CONSUMER AND
PRODUCER
PRICES*

Chapter 18

CONSUMER AND PRODUCER PRICES

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Chapter 18

CONSUMER AND PRODUCER PRICES

Prices are a key factor in the operation of the Australian economy, and indexes which measure movements in the various categories of prices have a direct or indirect effect on all Australians.

The Consumer Price Index (CPI) measures quarterly changes in the retail price of a basket of 'goods and services' which account for a high proportion of expenditure by metropolitan wage and salary earner households. In measuring price changes, the CPI aims to measure only pure price changes (that is, price changes excluding the effects of any changes in the quality or quantity of the goods and services concerned).

The CPI is often loosely and incorrectly referred to as a cost-of-living index. However, a true cost of living index would not be the same as a fixed-weight retail price index like the CPI. A cost-of living index would need to take into account the changes in standards of living and the substitutions that consumers make in response to changing market conditions, such as changes in supply, or in response to disparate price movements.

The CPI was first compiled in 1960 with the index numbers being compiled retrospectively to 1948.

1994-95 in Review

From June 1994 to June 1995, the CPI All Groups for Perth increased from 109.1 index points to 114.9 index points, an annual increase of 5.3 per cent. The groups contributing most to the overall increase, their respective percentage increases and the sub-groups or expenditure classes which are major contributors to the 5.3 per cent increase are listed below.

Housing	12.8%	Mortgage Interest Charges
Food	5.3%	Bread, Fresh Fruit & Vegetables
Transportation	4.7%	Automotive Fuel, Motor Vehicles
Tobacco & Alcohol	6.4%	Cigarettes and Tobacco; Beer
Health & Personal Care	8.1%	Hospital and Medical Services
Recreation & Education	4.5%	Entertainment

TABLE 18.1 - CONSUMER PRICE INDEX, ALL GROUPS INDEX NUMBERS

(Base year 1989-90 = 100)
Reference: Catalogue No. 6401.0

Period	Perth		Weighted average of eight capital cities	
	Index number	Per cent change from preceeding period	Index number	Per cent change from preceeding period
1992-93	106.2	0.3	108.4	1.0
1993-94	108.5	2.2	110.4	1.8
1994-95	112.3	3.5	113.9	3.2
Quarter				
1993—				
September	107.9	1.0	109.8	0.5
December	108.5	0.6	110.0	0.2
1994—				
March	108.6	0.1	110.4	0.4
June	109.1	0.5	111.2	0.7
September	110.1	0.9	111.9	0.6
December	111.0	0.8	112.8	0.8
1995—				
March	113.0	1.8	114.7	1.7
June	114.9	1.7	116.2	1.3

The annual increase (June quarter 1994 to June quarter 1995) in the CPI All Groups for the eight capital cities was 4.5 per cent. The groups contributing most to the annual increase for the eight capital cities were housing (up 10.9%); tobacco and alcohol (up 7.5%); the cost of health and personal care (up 5.0%); food (up 3.8%) ; transportation (up 3.1%) and Household Equipment and Operation (up 1.8%).

House Price Indexes House Price Indexes are compiled quarterly for use in calculating the mortgage interest charges component of the CPI. Separate indexes are constructed for project and established houses.

Producer Price Indexes Producer Price Indexes measure changes in the prices of goods moving between sectors of the Australian economy. The present range of producer price indexes which was developed and produced progressively from the 1960's relate to the building, manufacturing and mining sectors of the economy. They include the Price Indexes of Materials Used in House Building, Price Indexes of Materials Used in Other Than House Building, Price Indexes of Materials Used in Manufacturing Industries, Price Indexes of Articles Produced by Manufacturing Industry and Price Indexes of Materials Used in Coal Mining.

Consumer and Producer Prices

TABLE 18.2 - SELECTED HOUSING PRICE INDEXES: PERTH
(Base of Each Index: 1989-90 = 100)
References: Catalogue No's. 6408.0, 6416.0

Period	<i>Materials used in House Building</i>		<i>Project houses</i>		<i>Established houses</i>	
	<i>Index number</i>	<i>Per cent change from pre- ceding period</i>	<i>Index number</i>	<i>Per cent change from pre- ceding period</i>	<i>Index number</i>	<i>Per cent change from pre- ceding period</i>
1992-93	106.9	0.8	92.8	2.4	98.4	4.6
1993-94	109.0	2.0	96.2	3.7	104.7	6.4
1994-95	112.7	3.4	100.0	4.0	109.0	4.1
Quarter						
1993—						
September	108.4	0.6	94.5	0.7	101.0	1.7
December	108.5	0.1	95.2	0.7	103.7	2.7
1994—						
March	109.0	0.5	96.2	1.1	107.7	3.9
June	110.2	1.1	98.8	2.7	106.4	-1.2
September	111.4	1.1	99.0	0.2	108.0	1.5
December	112.1	0.6	99.6	0.6	109.1	1.0
1995—						
March	113.1	0.9	100.4	0.8	109.1	0.0
June	114.3	1.1	100.8	0.4	109.7	0.5

Foreign Trade Price Indexes

Foreign Trade Price Indexes measure changes in the prices of goods entering and leaving Australia. They comprise an Export Price Index first published in 1901, and an Import Price Index compiled from September 1981. The Import Price Index replaced the Reserve Bank's Import Price Index that was published from 1928 until September 1982.

Average Retail Prices for Selected Commodities

Average prices of a limited range of commodities are recorded in the Blue Books of Western Australia from the early colonial years, and in the Western Australian Year Book (Old series) from 1886. Retail prices of food and groceries and average rentals of houses for years extending back to 1901 have been collected by the Australian Statistician. Since 1962, average retail prices for a range of selected (mainly food) items have been published quarterly in *Average Retail Prices of Selected Items* (Catalogue No. 6403.0).

References

- ABS Publications*
- Australian Producer and Foreign Trade Price Indexes: Concepts, Sources and Methods* (6419.0)
- The Australian Consumer Price Index: Concepts, Sources and Methods* (6461.0)
- Average Retail Prices of Selected Items: Eight Capital Cities* (6403.0)
- Consumer Price Index* (6401.0)
- Export Price Index* (6405.0)
- A Guide to the Consumer Price Index: Eleventh Series* (6440.0)
- House Price Indexes: Eight Capital Cities* (6416.0)
- Import Price Index* (6414.0)
- Information Paper: The Australian Consumer Price Index Treatment of Mortgage Interest Charges* (6442.0)
- Information Paper: Review of the Consumer Price Index* (6450.0)
- Labour report No.58, 1973*
- Price Index of Materials Used in Building Other than House Building* (6407.0)
- Price Index of Materials Used in House Building* (6408.0)
- Price Index of Articles Produced by Manufacturing Industry* (6412.0)
- Price Index of Copper Materials* (6410.0)
- Price Indexes of Materials Used in Coal Mining* (6415.0)
- Price Indexes of Materials Used in Manufacturing Industries* (6411.0)

INTERNATIONAL

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Chapter 19

INTERNATIONAL TRADE

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Chapter 19

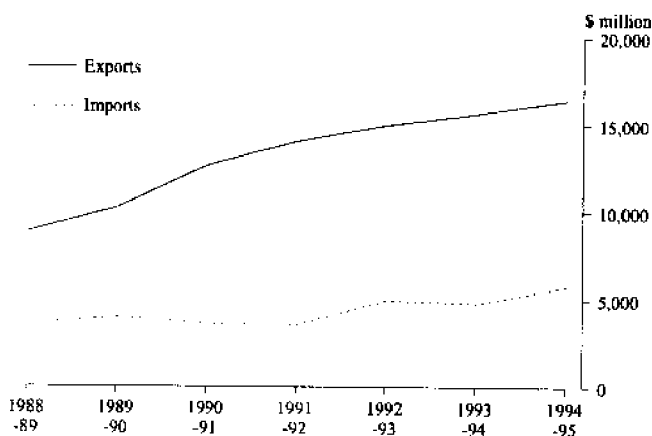
INTERNATIONAL TRADE

Pattern of International Trade

The value of Western Australian exports has increased continuously since 1966:

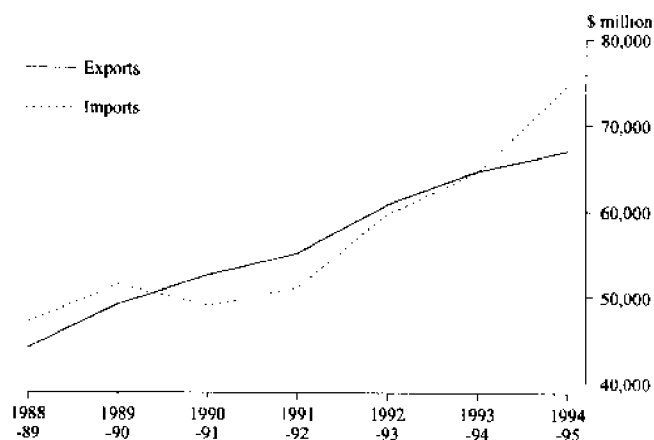
- In 1994-95, exports were almost three times the value of imports. The ratio of exports to imports has decreased over the past year from 3.27 (1993-94) to 2.83 (1994-95);
- Western Australia is still heavily reliant on the export of commodities such as gold bullion, iron ore, natural gas, petroleum and petroleum products, wheat and wool. The top four major commodity exports from Western Australia have, over the last three financial years, represented a significant proportion of total Western Australian exports to foreign countries. In 1992-93, the proportion was 55.5 per cent; in 1993-94, 52.5 per cent and in 1994-95, it was 53.6 per cent;
- Exports continue to make an increasing contribution to Western Australia's Gross State Product (GSP), at market prices; in 1991-92, exports comprised 34.6 per cent of GSP; in 1992-93, 35.0 per cent; and in 1993-94, 34.6 per cent.

DIAGRAM 19.1
VALUE OF EXPORTS AND IMPORTS
WESTERN AUSTRALIA



Source: FASTERACS

DIAGRAM 19.2
VALUE OF EXPORTS AND IMPORTS
AUSTRALIA



Source: Catalogue no. 5422.0

Western Australia continues to be Australia's major exporting State and its contribution, in percentage terms, to total Australian exports remains significantly high. In 1992-93, Western Australia was ranked first with 25 per cent of total exports; by 1993-94, although dropping back to 24 per cent, was still the biggest contributor to Australian exports and in 1994-95 remained so at 24.5 per cent. Diagrams 19.1 and 19.2 compare the different trends in export and import performance between Western Australia and Australia.

Exports

Japan continues to be the major export market and is also the largest import supplier. The bulk of Western Australia's exports are concentrated in a few major markets:

- in 1994-95, the top ten export markets accounted for 61.8 per cent of total exports.
- Western Australia's export markets are heavily concentrated in the Asia region. The ASEAN nations (Singapore, Thailand, Malaysia, Indonesia, the Philippines and Brunei), combined with the major North Asia economies (Japan, Republic of Korea, Hong Kong, China and Taiwan) received 57.1 per cent (or \$9,359 million) of total exports in 1994-95. European Union markets such as United Kingdom, Germany, France and Italy also represent significant export markets for Western Australia.

Western Australia's main exports in 1994-95 were:

- gold bullion (\$2,931 million or 17.9 per cent of total exports);
- iron ore (\$2,759 million or 16.8 per cent of total exports);

- petroleum and petroleum products (\$1,544 million or 9.4 per cent of total exports);
- natural gas (\$1,226 million);
- wheat (\$1,121 million); and
- wool (\$733 million).

Imports

The top three import suppliers to Western Australia in 1994-95 were Japan, the United States of America and the United Arab Emirates. Japan is currently our main source of imported goods and services. As with exports, the bulk of imports have tended to be sourced from a few major suppliers. The top ten importing countries represented 72.3 per cent of all imports to Western Australia. APEC members (Japan, USA, Singapore, New Zealand, China and Indonesia) represent major importing country group; whilst trade with European Union countries such as the UK, France and Germany was also significant.

Petroleum and petroleum products (14.2 per cent), road vehicles (13.8 per cent) and transport equipment (8.3 per cent) were, in dollar terms, the largest imports in 1994-95.

The Collection of ABS International Merchandise Trade and Shipping Statistics

ABS international merchandise trade and shipping statistics are collected via the following process:

- the Australian Customs Service (ACS) receives documentation submitted by exporters and importers (or their agents), as required by the Customs Act;
- this documentation includes information about the *type*, *quantity* and *value* of goods being imported or exported;
- this information is used by the ACS to assess and collect Customs duty and other revenue payable on imported and exported goods and to facilitate the monitoring and control of the physical movement of goods into and out of Australia;
- once the ACS has finalised processing this documentation for its own purposes, the information is passed on to the ABS for statistical processing; and
- after checking for errors and making any necessary amendments, the statistics are aggregated according to a number of classifications and are then released so they can be accessed and utilised by users.

TABLE 19.1 - VALUE OF OVERSEAS IMPORTS INTO AND
EXPORTS FROM WESTERN AUSTRALIA CLASSIFIED
ACCORDING TO ORIGIN OR DESTINATION: 1994-95 (\$'000)

<i>Origin or destination</i>	<i>Imports</i>	<i>Exports</i>
Argentina	4,064	1,942
Austria	16,435	2,281
Bahrain	368	9,377
Belgium-Luxembourg	36,015	79,866
Brunei	12,779	13,036
Brazil	18,262	4,661
Canada	85,194	66,674
Chile	4,420	23,965
China	155,684	670,743
Christmas Island	4	22,918
Czech Republic	10,062	4,231
Denmark	14,235	2,096
Egypt	206	3,731
Fiji	614	28,282
Finland	61,724	112,057
France	162,197	203,251
Germany	263,802	294,954
Hong Kong	20,316	324,503
India	31,441	65,400
Indonesia	153,961	265,626
Israel	11,688	2,796
Italy	146,099	188,096
Japan	1,195,652	4,421,472
Jordan	8,622	34,446
Korea, Republic of	106,915	1,433,462
Kuwait	35,469	23,318
Malaysia	150,585	255,935
Mexico	3,357	4,517
Netherlands	46,643	112,159
New Zealand	205,823	181,461
Norway	14,781	2,091
Pakistan	3,811	30,646
Papua New Guinea	12	18,813
Philippines	6,996	39,331
Portugal	2,600	10,577
Qatar	6	33,245
Russian Federation	1,982	958
Saudi Arabia	32,955	32,241
Singapore	255,943	1,133,954
South Africa	64,855	33,659
Spain	57,789	98,168
Sri Lanka	5,617	24,126
Sweden	69,397	2,508
Switzerland	51,552	103,248
Taiwan	110,591	489,184
Thailand	49,689	351,993
Turkey	2,757	30,919
United Arab Emirates	446,805	52,262
United Kingdom	332,606	568,296
United States of America	1,020,000	435,719
Vietnam	4,670	13,234
Yemen	—	2,989
Other countries, country unknown and re-exports	319,700	3,980,507
Ships' stores	—	88,312
Total overseas trade	5,799,349	16,394,075

TABLE 19.2 - VALUE OF EXPORTS FROM WESTERN AUSTRALIA - SELECTED MAJOR COMMODITIES MAIN COUNTRIES OF DESTINATION (a): 1994-95(\$'000)

<i>Commodity and destination</i>	<i>Value</i>	<i>Commodity and destination</i>	<i>Value</i>
Wheat—		Natural gas—	
Total wheat exports	1,121,487	Japan	1,155,657
Wool—		Spain	51,986
China	133,732	Korea, Republic of	11,168
Italy	123,288	Belgium-Luxembourg	6,932
France	111,324	Total natural gas exports	1,225,810
Japan	65,018	Fish, crustaceans, molluscs etc—	
Germany	63,679	Japan	134,790
United States of America	39,602	Taiwan	85,194
India	36,900	Hong Kong	45,336
Taiwan	27,417	United States of America	26,858
Malaysia	23,421	Singapore	8,949
Thailand	20,255	Malasia	2,067
United Kingdom	17,572	Spain	1,929
Total wool exports	732,844	China	1,271
Iron ore—		Total fish, crustaceans molluscs etc exports	408,638
Japan	1,262,807	Live animals (excluding fish)—	
China	483,132	Indonesia	47,213
Korea, Republic of	417,495	United Arab Emirates	34,341
Taiwan	126,701	Jordan	32,934
United Kingdom	115,060	Kuwait	20,605
Germany	111,895	Malaysia	14,470
France	81,964	Qatar	13,844
Italy	38,393	Total live animal exports	198,697
Netherlands	26,370	Gold coin—	
Pakistan	25,001	Germany	75,969
Total iron ore exports	2,759,025	Switzerland	40,922
Gold bullion—		United States of America	30,513
Japan	865,768	Japan	18,879
Korea, Republic of	756,063	Taiwan	17,886
Singapore	747,191	Hong Kong	11,652
Thailand	242,312	Total gold coin exports	199,847
Hong Kong	141,220	Dyeing, tanning and colouring materials—	
Malaysia	94,199	Korea, Republic of	54,552
Switzerland	42,540	Japan	36,428
Laos	28,750	Thailand	25,599
Italy	5,128	Philippines	20,170
Germany	2,854	Singapore	19,779
Total gold bullion exports	2,930,693	Taiwan	19,065
Petroleum and petroleum products—		Indonesia	18,264
Japan	314,144	Hong Kong	17,924
United States of America	223,106	Total dyeing, tanning and colouring materials exports	277,341
Singapore	213,947	Transport equipment—	
Taiwan	174,397	Hong Kong	23,865
Indonesia	150,009	Japan	12,264
New Zealand	113,931	Malaysia	12,237
Korea, Republic of	97,392	French Antilles	12,083
Netherlands	27,229	Fiji	5,420
French Polynesia	23,692	Total transport equipment exports	95,778
Total petroleum and petroleum products exports	1,544,352		

(a) Totals do not necessarily add up to the sum of the components as some Countries are not listed in the commodity breakdown.

International Trade

TABLE 19.3 – VALUE OF INTERNATIONAL TRADE WITH SELECTED COUNTRIES BY SELECTED DIVISIONS, WESTERN AUSTRALIA: 1994-95 (\$'000)

Division	Description	Imports				Exports			
		Japan	United States of America	United Kingdom	All countries	Japan	United States of America	United Kingdom	All countries
01	Meat and meat preparations	—	—	1	545	17,432	16,822	8,917	131,690
03	Fish, (not marine mammals) crustaceans, molluscs and aquatic invertebrates, and preparations thereof	1,934	417	184	55,484	134,790	26,858	77	408,638
04	Cereals and cereal preparations	539	711	1,398	10,313	20,840	—	—	1,154,306
05	Vegetables and fruit	180	4,803	832	32,598	2,348	17	2,439	86,161
08	Feeding stuff for animals (excluding unmilled cereals)	—	155	24	5,183	18,404	1,099	—	47,991
24	Cork and wood	—	1,731	16	16,526	81,076	877	3,920	98,586
26	Textile fibres and their wastes (not manufactured into yarn or fabric)	427	448	1,471	9,849	65,027	39,396	17,664	733,847
27	Crude fertilisers (excluding those of Divisions 56) and crude minerals (excluding coal, petroleum and precious stones)	746	1,258	210	32,487	7,556	4,444	267	219,255
28	Metalliferous ores and metal scrap (a)	58	1,436	10	3,544	1,371,144	35,075	115,448	3,094,043
29	Crude animal and vegetable materials, n.e.s.	3,982	1,151	198	16,055	8,639	1,994	181	38,054
33	Petroleum, petroleum products and related materials	98	19,839	761	823,792	314,144	223,106	3	1,544,352
34	Gas, natural and manufactured	—	—	16	2,248	1,155,657	9	—	1,225,810
51	Organic chemicals (a)	7,136	13,861	27,452	97,777	89	36	10	574
52	Inorganic chemicals (a)	2,068	33,872	6,505	82,605	19,755	12,804	99	84,083
53	Dyeing, tanning and colouring materials	95	2,538	974	7,887	36,428	390	2,172	277,341
56	Fertilisers (excl. crude)	178	34,297	2,016	138,404	—	—	—	1,026
58	Plastics in non-primary forms (a)	1,841	9,638	1,157	31,035	272	328	120	5,725
59	Chemical materials and products, n.e.c.	3,603	22,889	12,140	69,200	78	138	—	6,983
62	Rubber manufactures, n.e.s.	85,245	10,038	4,949	157,935	86	190	72	3,735
64	Paper, paperboard and articles of paper pulp, of paper or of paperboard (a)	2,994	5,908	2,279	71,611	11	13	529	8,685
65	Textile yarn, fabrics, made-up articles n.e.s. and related products (a)	2,229	3,316	3,267	57,771	115	361	1,017	12,715
66	Non-metallic mineral manufactures, n.e.s. (a)	12,075	4,589	5,836	111,582	42,437	6,860	21,432	137,630
67	Iron and steel	45,703	8,191	9,488	134,042	76	—	170	7,170
68	Non-ferrous metals (a)	179	4,736	745	59,048	23	570	520	424,336
69	Manufactures of metal, n.e.s. (a)	6,113	24,706	10,117	172,936	823	5,323	952	44,194
71	Power generating machinery and equipment	14,561	55,624	48,731	203,103	650	1,080	1,061	9,400
72	Machinery specialised for particular industries (a)	78,135	155,041	26,521	436,906	776	8,934	1738	92,164
	General industrial machinery and equipment, n.e.s. and machine parts, n.e.s. (a)	33,139	82,468	21,640	308,747	883	1,815	2,046	72,473
75	Office machines and automatic data processing equipment	3,785	183,177	8157	293,743	88	1,209	476	25,884
76	Telecommunications and sound recording and reproducing apparatus and equipment	22,162	6,683	2,753	72,730	92	425	393	32,505
77	Electrical machinery, apparatus and appliances, n.e.s. and electrical parts thereof (c)	15,875	24,332	20,155	132,519	703	1,219	501	29,243
78	Road vehicles (incl. air cushion vehicles)	461,956	127,049	41,225	802,089	681	594	66	13,124
79	Transport equipment (excl. road vehicles)	362,459	88,579	5,851	483,058	12,264	1,346	118	95,778
87	Professional, scientific and controlling instruments and apparatus, n.e.s.	5,181	33,536	11,209	83,604	344	614	1,869	13,583
97	Gold, non-monetary (excl. gold ores and concentrates)	2	2	—	115,813	865,768	96	—	2,930,693
Total (b)		1,195,652	1,020,000	332,606	5,799,349	4,421,472	435,719	568,296	1,6394,075

(a) Excludes commodities subject to a confidential restriction. These are included in totals. (b) Includes details not available for publication and divisions not shown separately. (c) Including non-electrical counterparts n.e.s. of electrical household type equipment.

Concepts and Definitions of International Trade Statistics

Merchandise Exports are defined as all goods which *subtract* from the stock of material resources in Australia as a result of their movement out of the country.

Re-exports are goods, materials or articles originally imported which are exported in either the same condition in which they were imported or after undergoing repair or minor operations which leave them essentially unchanged. Minor operations include blending, packaging, bottling, cleaning, sorting etc. An example of re-exported goods would be brandy imported from France to Australia in bulk, which is then bottled and exported to New Zealand. The brand would be classified as re-exports with the country of origin as France.

Merchandise Imports are defined as all goods which *add* to the stock of material resources in Australia as a result of their movement into the country.

References

ABS Publications

International Merchandise Trade Australia (5422.0)

FASTRACCS - Electronic Service

REGIONAL PROFILE

Chapter 20

REGIONAL PROFILE

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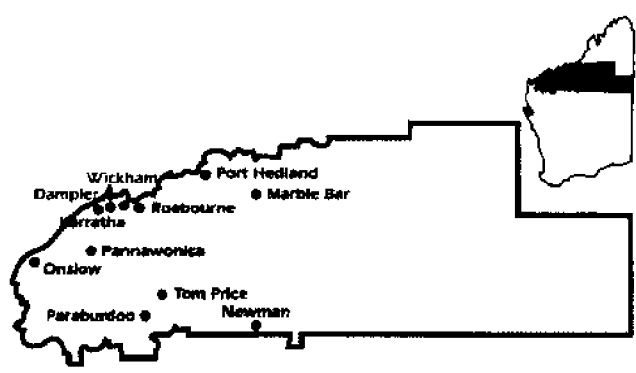
REGIONAL PROFILE

Pilbara Statistical Division

Economy

The region

The Pilbara region is Western Australia's second most northern region. It covers an area of over 510,000 square kilometres, which is approximately 20 per cent of the State's total area. The eastern edge of the Pilbara is the Western Australia-Northern Territory border. The western boundary is the Indian Ocean. The majority of both the population and economic activity is located in the western third of the region. The eastern two thirds is largely desert country with few inhabitants.



The region has four local government areas, the Shires of Ashburton, East Pilbara, Roebourne and the Town of Port Hedland.

The Pilbara came to national and international prominence during the 1960s when the go-ahead was given to extract iron ore deposits in the region. Today the region's economy is crucial to the State's economy, providing two of the State's largest exports - iron ore and liquefied natural gas, both of which have played key roles in the economic development of the State. However, in many ways, the full human and natural potential of this vast and sparsely inhabited region, is yet to be tapped.

DEVELOPMENT IN THE PILBARA

The following article is contributed by the Department of Resources Development.

Development of the Pilbara region into one of the world's great mineral-producing areas has been a stunning success. Although large scale mining operations began only 30 years ago, the region now produces close to \$A6 billion worth of minerals, or one-tenth of Australia's merchandise exports.

Its present economy is based principally on iron ore, natural gas, petroleum and solar salt. Further development will be based on expansion and value adding of these industries.

Prior to the 1960s, the Pilbara had negligible infrastructure and was sparsely populated, with less than 5,000 people spread over 510,000 sq km. Iron ore was perceived as a scarce resource controlled by a federal government export embargo. Thirty years of development have brought profound change, including a tenfold increase in population.

Western Australia currently provides more than 33 percent of the world's seaborne trade in iron ore. Today, WA iron ore producers are considered reliable, highly efficient and extremely competitive in the global market.

The Pilbara oil and gas industry will be one of the world's major growth industries of the 21st century, with WA about to become the largest petroleum producer in the country. Increased offshore production, together with additions to Liquefied Natural Gas (LNG) capacity already in place, will boost the economy of both the region and State.

Energy deregulation

The beginnings of 1995 marked the start of a new era of critical importance to the economy of WA - energy and resources.

As of last January, the State Government split the State Energy Commission of WA into two clearly defined gas and electricity utilities. Deregulation provides for direct sales of gas or power from producers to industrial customers.

This freeing up of the energy market, made against a backdrop of rapid global change in deregulation and trade liberalization, has been the catalyst in transforming the Pilbara into one of the most competitive industrial locations in the Asia-Pacific region.

Transportation advantages

The region has a significant advantage over many other world locations in transport to Asian markets. While the cost of shipping direct reduction ore (DRI) from South America to East Asia is about \$US40 per tonne, the cost from the Pilbara is only \$10 per tonne. sailing time from the Pilbara to East Asia is about two weeks.

Gas price

Current gas prices in the Pilbara are believed to be considerably lower than those of comparable gas producers in the East Asian region for new projects. Moreover, gas prices have fallen as a result of the energy sector deregulation.

Estimates of historical gas prices (undelivered) for industrial users are derived from Department of Resources Development-commissioned studies of resource processing opportunities in the Pilbara, all projects being major gas users.

Current gas prices (undelivered) for a major user are reportedly \$US1.05/GJ (\$A1.40/GJ), 22 per cent below the 1994 level.

The availability of cheaper gas and lower energy prices has significantly enhanced the final attractiveness of value added activities in the Pilbara.

A number of national and international organisations are considering petrochemical and DRI projects. Present enthusiasm in the more sophisticated and financially attractive value adding industries is clear endorsement of the Pilbara's competitiveness.

Construction costs

Once considered to be a highly prohibitive factor, construction costs in the Pilbara are now estimated to be 15 per cent higher than in the Perth metropolitan area.

This cost disadvantage is projected to continue to fall to 10 per cent by the year 2000. These estimates are based on studies conducted by Kaiser Engineers and Chem Systems.

Heavy Industry

The Government has acknowledged that in order to attract investment, it is critical that quality industrial land with attendant infrastructure be readily available to potential investors.

In view of this, large industrial estates are being developed in the vicinity of Dampier (Maitland Heavy Industry Estate), Port Hedland (Boondarie Heavy Industry Estate), and Cape Lambert. The Maitland Estate will be linked by a causeway to a deep water terminal on West Intercourse Island. There will be scope for both multi-user and private shiploading facilities on the island.

Current estimates indicate Industrial land in the Pilbara will be available to potential investors at \$A1600/ha compared to land at Kwinana, south of Perth, at \$A100,000/ha.

Labour Costs

Vigorous collective bargaining in a capital-intensive industry was the norm in the Pilbara well into the 1980s. This resulted in high labour turnover and an adversarial industrial relations climate.

However, during the past few years, radical shifts in labour practices and greater efficiencies have made the industry extremely cost-competitive. Introduction of workplace agreements, enterprise bargaining and multiskilling has reduced labour costs and drastically transformed the region's industrial relations landscape.

The Pilbara is now perceived as an attractive place of permanent residence for the average worker due to establishment of towns with first-class facilities and infrastructure.

Furthermore, increased flexibility in the workplace and improved industrial safety performance are having a profound effect on the regions productivity.

In summary, lower energy costs, combined with established and efficient infrastructure, low-cost/high-quality raw materials, and expanding services sector, access to low cost industrial land, and an excellent industrial relations climate have established the Pilbara as one of the most exciting and competitive industrial locations in the Asia-Pacific region.

Overview of economic activities

The Pilbara's economy is based primarily on its mining and petroleum sector. As a consequence most economic activity is derived from direct and indirect employment arising from the production of these two commodities. The region is the largest mineral resources producing division in the State, accounting for almost 42 per cent of the total value of mineral production in Western Australia.

Iron ore valued at almost \$3 billion per annum along with the oil and gas industry which produces commodities worth \$2.3 billion each year, are the major minerals produced. Gold and salt from the region, contribute a further \$198 million and \$109 million respectively, to the State's economy. Manganese, tantalite, feldspar and copper mining operations exist and a number of other minerals of economic significance are located in the Pilbara. The pastoral industry based on sheep for wool and cattle for meat, contributes over \$25 million to the region's economy annually. The potential for horticulture development in the region is promising and may offer an alternative source of income for the agricultural sector.

Manufacturing consisting primarily of small businesses supplying the local market, provides employment for 200 people and has a turnover of over \$30 million per annum. Similarly, the retail and service sector supplies the local market and has a turnover of \$207 million. Tourism also makes a significant contribution to the region's economy and may hold the key to broadening the economic base of the Pilbara. During 1991-92 visitors to the region spent a total of \$117 million.

Development of Karijini National Park is viewed as being the catalyst for significant tourism development in the region. The Pilbara's close proximity to South East Asian markets and existing trade routes, combined with the potential for mineral processing provides the region with enormous potential for further development and overseas trade.

Resident population

The 1991 census shows the resident population of the region to be 48,620. The population of the Pilbara is forecast to rise to almost 60,000 by the year 2001 as further development occurs. The major population centres are Dampier, Karratha, Newman, Onslow, Paraburdoo, Port Hedland, Roebourne, Tom Price and Wickham. Almost 96 per cent of the region's population live in these towns with the remainder living on pastoral stations and Aboriginal communities. The region has a higher under 10 year old and 22-44 year old population than the State average. The over 55 population, a percentage of the total Pilbara population (11.3 per cent of the State's total). Compared to State mobility figures, the Pilbara population is relatively more mobile than the State as a whole. However, the rate of mobility is declining as the number of major construction projects decrease.

Employment by industry

The most important industry in employment terms in the Pilbara is mining, which directly accounts for over 30 per cent of employment. The community services sector has grown in terms of direct employment, employing 13.2 per cent of the work force, making it the second largest employer in the region. The retail

TABLE 20.1 - EMPLOYED PERSONS BY INDUSTRY
PILBARA STATISTICAL DIVISION, 1991
Reference: Census of Population and Housing

Industry	Male	Female	Persons	Per cent
Agriculture, forestry, fishing, & hunting	316	127	443	1.9
Mining	6,220	750	6,970	30.4
Manufacturing	1,011	150	1,161	5.1
Electricity, gas, & water	542	77	619	2.7
Construction	1,782	168	1,950	8.5
Wholesale, retail trade	1,262	1,378	2,640	11.5
Transport, storage	912	258	1,170	5.1
Communication	109	72	181	0.8
Finance, property, and business services	566	522	1,088	4.7
Public administration, and defence	333	246	579	2.5
Community services	977	2,065	3,042	13.2
Recreation, services undefined	542	1,014	1,556	6.8
Non-classifiable economic unit	74	18	92	0.4
Industry not stated	968	501	1,469	6.4
Total employed	15,614	7,346	22,960	100.0

and wholesale record is the third largest employer with 11.5 per cent of the work force.

The next largest employment sector in the economy is building and construction which provides more than 8 per cent of the total work force. It should be noted that the construction work force has always displayed great volatility depending on the timing of various projects. Other important sectors are recreational services (which includes tourism), management and finance and business services which each employ between 4.5 and 7 per cent.

Iron ore

The iron bearing geological formations of Western Australia's Pilbara region were laid down over 2,000 million years ago. Since the Commonwealth Government lifted its embargo on the export of iron ore in the 1960s, over \$2 billion in iron ore production facilities, railways, ports and new towns has been invested in the region.

Since commencement of mining in the Pilbara in 1966, a total of about 1,700 Mt of ore with a value of \$46 billion, at current prices, has been shipped. The value of iron ore shipped has consistently increased over the last 5 years. Currently the Pilbara produces over 1,00 Mt ore with a value of almost \$3 billion each year.

The Pilbara iron ore industry is vital to the Australian economy accounting for about 7 per cent of the nation's total exports.

Oil and gas

The Carnarvon Basin (North West Shelf) which has good support facilities nearby, is proving to be the most prospective region for oil and gas exploration in Australia. Investment in the North-West Shelf has exceeded \$10 billion to date and will see a similar amount of investment capital being required in the next decade or so.

The Pilbara has been producing Liquefied Natural Gas (LNG) from the North West Shelf project since 1989. The North West Shelf project is the largest resource development ever undertaken in Australia and one of the largest in the world. This project produced 4,728,949 tonnes of LNG in 1992, compared to 4,094,373 tonnes in 1991, an increase of 15%. The annual value of LNG production is almost \$1 billion.

The first commercial find of oil in the region was not made until 1964 when WAPET found oil at Barrow island. Total production to date has exceeded 250 million barrels.

During the 1980s, oil discovered during the 1960s and 1970s was brought into production. The Saladin field remains Western Australian largest oil producer comprising 46 per

cent of the State's total production. Total production of crude oil and condensate in the Pilbara is worth over \$1.2 billion per annum.

With the reduction in output from the oil and gas-fields in Bass Strait, the North West Shelf is likely to become Australia's largest oil and gas producing area within the next decade.

Other minerals

Gold mining occurs at a wide range of locations in the Pilbara and the region contains the State's second largest gold mine at Telfer. Smaller, old gold mines are continually being redeveloped due to increased gold prices and improvements in technology.

Nullagine and Marble Bar in particular, have attracted companies to rework old mines in their vicinities.

Gold production for the region is valued at almost \$200 million each year.

The other major mineral produced in the Pilbara is salt. Salt fields are located at Dampier and Port Hedland. The estimated value of production is approximately \$109 million each year. Manganese, tantalite, felspar and copper mining operations also exist and these contribute a further \$70 million to the region's economy each year. A number of other minerals of economic significance such as uranium are also located in the Pilbara but not presently mined.

Pastoral

The development of the pastoral industry was largely responsible for European settlement of the region. Prior to the resources boom of the 1960s, the pastoral industry was the mainstay of the region's economy.

Pastoral leases cover about one-third of the Pilbara and are used mainly for extensive cattle and sheep grazing on native vegetation of shrub-lands and grasslands. Almost all the 63 pastoral leases in the Pilbara carry cattle, but only 69 per cent rely solely on cattle for their income. Sheep provide the sole income for 6 per cent of the pastoral properties; the remainder combine sheep and cattle to produce income.

The total value of livestock production varies between \$25 million and \$35 million per annum depending on seasonal conditions.

Prospects for horticulture development will enable the value of agricultural production to be maintained even if there is a decline in the pastoral industry.

Fishing

While the fishing industry is small by comparison with operations in other coastal regions of the state, it nevertheless makes an important contribution to the diversification of the regional economy by harvesting a valuable resource. Established fisheries

in the Pilbara region are located at Onslow, Dampier, Point Samson and Port Hedland.

Both freezer and catcher vessels operate for prawns in the region. Approximately 80 per cent of the catch is exported overseas through agents located in Perth. The total value of the prawn fishery is estimated at around \$5 million per annum.

However, the total value of fisheries fluctuates from year to year, largely attributable to the variations in the value of the prawn catch. Even so, the gross value of fish and prawn production is expected to increase over the next few years.

Construction and building

This significant sector of the Pilbara economy is largely dependent on activity in the mining industry and consequent population growth. Fluctuation in activity is common, particularly in the residential sector.

Transport costs and a lack of suitable local building materials make home building expensive. To date much of the residential construction is financed by companies or Government, though private home ownership is increasing.

In recent years the level of building has been low, with less than 100 houses being built per annum. However, non residential construction appears to be recovering from a low 4 years ago.

Manufacturing

The manufacturing base of the region is quite small with 29 businesses employing 200 people, with a combined turnover of \$30 million per annum.

Manufacturing activity is almost entirely based on supplying the small local market and is further constrained by the necessity to import most raw materials. Firms undertake bread making, printing, furniture making, production of some building materials, metal fabrication and light engineering, including vehicle accessories and small specialised mining equipment items.

Commerce

Small businesses in the region provide a wide range of retail goods. Generally these small retailers are supplied directly from Perth. Annual retail turnover per employee in the retail sector in the Pilbara is similar to the State average. However, account should be taken of the high costs of goods imposed by distance and freight charges.

Growth of the wholesale and retail sector in recent years reflects continuing investment and stability in the region. Similarly the financial sector is well represented with major banks, building societies, and credit unions having offices

throughout the region. Many other small businesses offer services ranging from engineering and surveying and personnel consultants to equipment hire and cleaning.

The retail sector has shown moderate growth in turnover over the last 5 years with estimated retail turnover totalling \$207 million last year.

Tourism

Tourism continues to develop as a major force in the diversification of the Pilbara region. Visitors are attracted by the spectacular gorge country in the Karijini National Park (formally called the Hamersley Range National Park), and the tropical oasis of Millstream. The massive iron ore operations and the North West Shelf Gas project provide added interest. In addition there are many historical attractions such as the old towns of Cossack and Marble Bar. Excellent fishing and aquatic activities are available on the Pilbara coast.

Tourism is a major contributor to the economy of the Pilbara region. Visitors to the region spent a total of \$117 million. Intrastate visitors incurred a total expenditure of \$73 million while interstate and overseas visitors spent \$22 million and \$21 million respectively. The average expenditure per visitor night, across all forms of accommodation, was about \$100 per day.

The major tourist market to the Pilbara region is intrastate visitors comprising 83 per cent of total visitors to the region. Interstate and international visitors represent 12.5 per cent and 3.8 per cent of the total, respectively.

Pilbara Infrastructure And Services

Energy

There is great potential for the Pilbara to provide gas at an internationally competitive price.

Currently natural gas from the North West Shelf project is provided to power stations operated by mining companies to Dampier and Cape Lambert. An interconnected grid, combining the resources of the State Energy Commission of WA (SECWA) and the mining company power stations, supplies electricity to many Pilbara communities.

The generating capacity of the interconnected grid considerably exceeds demand. New gas and oil discoveries have the potential to provide additional sources of the raw material from which to generate electricity.

The capital cost of extending power to a site varies, depending on project location.

The State Government has signalled its determination to create a more competitive energy market in the near future through the Pilbara 21 planning strategy, with the aim of providing the Pilbara with an appropriate, sustainable and competitively priced energy network.

BHP Iron Ore will build a major energy system, consisting of a power station at Port Hedland which will be supplied with gas via a pipeline from Dampier. The project is expected to commence in 1996 at an estimated cost of \$300m. It will include new energy sources for Newman township and mining operations. Current options include:

- A high voltage transmission line from the gas fired power station at Port Hedland, and
- a gas pipeline and power station strategically located to capitalise on the proposed Pilbara to Goldfields gas pipeline.

It is therefore conceivable that in the near future Pilbara industries can benefit from the natural gas resources the region offers, using heat energy in modern gas turbines to produce internationally competitive priced electricity for plant needs. Such options will assist in providing added flexibility to the possible sites for major new industries.

Water supplies

Two major water schemes operate in the Pilbara.

Port Hedland obtains its water supply from bore fields at two nearby rivers. The towns of Karratha, Dampier, Roebourne and Wickham obtain their water from alternating sources of a natural aquifer and nearby dam

The capacity of the sources that service both schemes substantially exceed current demand. Potable water resources are estimated to be capable of providing 420 million kilolitres per year, with current regional consumption being estimated at 43 million kilolitres per year.

For cooling purposes, deep sea water is accessible for industries with large water requirements. The Water Authority of WA requires a capital contribution towards the cost of developing water supply source works and

Distribution facilities for projects which use more than 49 kilolitres of water a day. This contribution is determined by the projected peak daily demand for a particular project.

For very large projects, it usually also includes the peak daily demand, and direct domestic and consequential development associated with the project. Agreements last 15 years and can be renewed for two further 15 year periods.

Transport facilities

The ports in the Pilbara handle tonnages far in excess of any other ports in the State, with export trade dominating the goods handled.

The Pilbara is served by the ports of Dampier, Port Walcott (Cape Lambert) and Port Hedland as well as a landing point at Barrow Island. The State Government, through the Marine and Harbours Department, manages Port Walcott under the Shipping and Pilotage Act. Both Port Hedland and Dampier Ports are statutory authorities controlled by their own respective Acts of Parliament.

The Port Hedland Port Authority is responsible for 5 main berths, 2 owned by the Authority and three owned by BHP Iron Ore. Presently, like the industries it serves, the Port Authority is expanding its operations, based on a firm confidence in the region's tremendous potential for new industry. This is part of water front reform to reduce charges, and make the port more efficient and accessible to new industry. Approved plans for a wharf extension also exist.

Apart from existing ports where there is an availability of deepwater, there are sites between Cape Preston and Port Hedland which are accessible to deep water and may be suitable as a major industrial site.

Stateships (The Western Australian Coastal Shipping Commission) calls regularly to the Pilbara as part of its scheduled service from South East Asia. On coastal services, Stateships sails every nine days from Fremantle, the Kimberley and Darwin. The Pilbara is easily accessed by road from Perth by two major highways; The Great Northern Highway (National Highway) and The North West Coastal Highway.

Most centres are serviced by daily coach services to and from Perth and Darwin. A public bus service operates in Port Hedland and most major centres have a taxi service. Some towns provide a school bus service. Several transport companies provide daily freight deliveries to major Pilbara centres.

Air travel both within and from outside the region is commonplace. There are twelve airstrips in the Pilbara. Ansett WA provides a regular jet service to the Pilbara towns of Port Hedland, Karratha, Newman and Paraburdoo. Skywest operates regular passenger transport flights to Marble Bar, Nullagine, Telfer and Onslow. Port Hedland is designated as an international airport, with weekly services to Bali. Air Charter services are also available.

Communications

The Pilbara, although remote, enjoys the benefits that sophisticated modern technology affords in the field of communications. Major towns in the Pilbara are all connected to

the automatic network and have access to ISD, STD, facsimile, telex, and data link services.

ABC television throughout WA, including the Pilbara region, is provided via the Homestead And Community Broadcasting Satellite Services (HACBSS), using the AUSSAT satellite system. The remote commercial television service provided by the Golden West Network began its operations in 1986, providing viewers with an additional channel.

Most major towns receive radio services. Major metropolitan newspapers are available daily in the region. Distribution of local newspapers, *The Guardian* and *The North West Telegraph*, also assists communities to keep in touch. Community newspapers and newsletters are also produced in the smaller mining towns.

A variety of postal services is available. The daily airmail service allows for a street mail delivery service in major Pilbara towns.

Education and training Education opportunities in the Pilbara range from pre-school to post secondary.

For primary and secondary students in areas too remote to attend regular schools, the Port Hedland School of the Air Provides opportunities for children to study by correspondence. Both government and non government schools are present in major towns. The region also has two Education Support Centres catering for children who have disabilities.

There are three independent post-secondary institutions in the Pilbara; Karratha College, Hedland College and Pundulmurra College. From these campuses, annexes in other towns and co-ordinators in smaller communities, the colleges offer a range of technical, tertiary, apprenticeship and recreational courses. Residential accommodation is available to students at all colleges.

The colleges aim to provide programs which have particular relevance to the employment and training requirements of the region. Customised training units at Karratha and Hedland Colleges ensures a direct response to the training needs of Industry in the Pilbara. Pundulmurra is a self determining Aboriginal College.

Health

The Pilbara has a comprehensive network covering all areas of health care and prevention. The regional hospital is located at Port Hedland with the towns of Karratha, Roebourne, Wickham, Tom Price, Paraburdoo, Onslow and Newman being serviced by district hospitals. Smaller communities are

serviced by community nursing posts or company operated clinics.

Several specialist services are based at the regional hospital - paediatrics, gynaecology, radiology, anaesthetics, internal medicine and general surgery. Port Hedland and Karratha also receive visits from specialists including gynaecologists, ophthalmologists, rheumatologists, paediatricians, medical registrars, general surgeons, psychiatrists and ear, nose and throat specialists.

Patients at other centres are referred to these specialists and may receive travel assistance for visits. Emergency cases in isolated areas and smaller centres may be evacuated to larger hospitals via the Royal Flying Doctor Service, based at Port Hedland.

Pilbara Commodity

Outlook *Iron Ore*

Iron Ore export earnings totalled \$2.9 billion in 1992-93 with 108 million tonnes shipped. These record earnings are predicted to fall slightly this financial year to \$2.8 billion due to lower prices. This will be despite a forecasted rise in tonnage shipped to 110 million tonnes. A decline in exports to Western Europe will be more than offset by strong demand from China and South Korea with steady if not slightly stronger demand from Japan.

Despite forecasts of slow growth in world crude steel production, predicted strong Asian growth should place the Western Australian iron ore industry in a favourable position for the next five years.

This optimism is reflected in the continuing investment in new mines in the Pilbara. Construction of Hamersley Iron Pty Limited's Marandoo mine is on target for production to commence in late 1994 and BHP has commenced mining at its Yarrie deposit. The Pilbara's other major producer, Robe River, has completed its move to Mesa J and can quickly expand capacity up to 32 million tonnes per annum in response to market requirements. Other deposits such as Hancock Resources and Hope Downs are currently undergoing market and technical studies and if brought on stream, will significantly increase the production capacity of the Pilbara.

Oil

World oil prices are expected to average US\$18.0 a barrel in this financial year, up slightly on last years value. World demand for crude oil is expected to be 67.5 million barrels per day, up one per cent on the previous year. This is in line with rising economic activity in the world economy. Australian's crude oil production is forecast to increase by one per cent to 535,000 barrels per day, with the increase mainly coming from production in the North

West areas of Western Australia. These areas are set to overtake Bass Strait as the major oil area production in Australia by the mid 1990s. Domestic sales are expected to grow by three per cent with strong demand in transport fuels reflecting firmer domestic economic growth.

Crude oil exports are predicted to earn \$2 billion for Australia in this financial year.

Liquefied natural gas

Exports of LNG will continue to grow from 4.93 million tonnes from the previous year to 5.65 in the current financial year, with predicted earnings of over \$1 billion. All of the state's LNG is produced from the North West Shelf Gas project in the Pilbara. The outlook for the international LNG market is very promising with demand increasing well into the next century. Consequently, with large reserves of natural gas available in the North West region, potential LNG production could reach 20 million tonnes by 2008 with export earnings of \$3.4 billion on current prices.

Copper

World copper production is expected to rise to meet moderate increases in consumption. Strong demand in Asia and to a lesser extent in the USA will offset to some extent, continued weak demand in Western Europe and Japan.

Australian production is forecast to rise by 5 per cent this year to 415,000 tonnes with new production coming on stream at Nifty in the Pilbara and elsewhere in NSW. Nifty will have an annual output of 14000 tonnes. Although Australian

production will be up, due to weak commodity prices this year, total export earnings are expected to fall 5 per cent to \$748 million. However, improved demand in the medium term should flow through to higher prices.

Salt

World salt production capacity will increase substantially over the next several years through the expansion of salt fields in Western Australia and Mexico. This additional capacity, coupled with reduced demand from the world's main importer, Japan, will result in a surplus which is expected to keep prices subdued for the next several years. However, the supply/demand gap is expected to close in the latter part of this decade primarily as a result of growth in the Asian region.

Cattle for beef

Nationally the total cattle herd is approximately 24 million. Of this figure 123,000 head are situated in the Pilbara. The value of national exports is set to fall marginally from \$2.9 billion to \$2.8 billion due mainly to lower volumes. However, the reduced export figure has been minimised by the lower Australian dollar. Beef production in the region is expected to remain stable.

ASSISTANCE

For further information contact the Pilbara Development Commission (PDC). Offices are located at:

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HISTORICAL STATISTICS

Chapter 21

HISTORICAL STATISTICS

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Chapter 21

HISTORICAL STATISTICS

In the following pages, a historical summary of some of the more important statistics relating to Western Australia is shown. This is intended to present a general picture of the development of the State. Naturally, the range of statistics available in the early years of the colony is limited.

It is not always possible to achieve perfect comparability over long periods of time because of changes in definitions, scope of statistical collections etc. While major breaks in series are shown, minor changes are not shown and the statistics should be interpreted with this in mind.

Generally, the first year shown on each page is the earliest for which any series on that page is available. Because of space constraints, data for earlier years are shown at ten year intervals only.

Historical Statistics

TABLE 21.1 - ESTIMATED POPULATION, NATURAL INCREASE AND MIGRATION

NOTE: Figures above the double lines exclude full-blood Aborigines; those below the double lines refer to total population, including Aborigines.

Year	Population at 31 December(a)			Recorded natural increase (b)	Population increase		Total increase (d) Per cent (e)	Mean population Year ended		Population of Perth Statistical Division (b) (f)
	Males	Females	Persons		Estimated net migration (c)	30 June		December		
1829	769	234	1,003	n.a.	n.a.	n.a.	n.a.			('000)
1830	877	295	1,172	n.a.	n.a.	169	16.85			
1840	1,434	877	2,311	34	123	157	7.29		n.a.	
1850	3,576	2,310	5,886	132	1,109	1,241	26.72			
1860	9,597	5,749	15,346	379	130	509	3.43	n.a.	15,092	n.a.
1870	15,511	9,624	25,135	475	7	482	1.96		24,894	
1880	16,985	12,576	29,561	551	-129	422	1.45		29,350	
1890	28,854	19,648	48,502	1,021	1,821	2,842	6.22		47,081	20
1900	110,088	69,879	179,967	3,214	6,495	9,709	5.70		175,113	73
1910	157,971	118,861	276,832	4,845	6,312	11,157	4.20	266,687	271,019	115.7
1920	176,895	154,428	331,323	4,761	-1,298	3,463	1.06	327,152	330,023	167.0
1930	232,868	198,742	431,610	5,426	-453	4,973	1.17	425,785	429,079	235.1
1940	248,734	225,342	474,076	4,598	-2,902	1,696	0.36	472,060	473,397	255.5
1950	294,758	277,891	572,649	9,170	19,295	28,465	5.23	545,134	557,878	351.7
1960	372,665	358,368	731,033	11,229	1,113	12,342	1.72	717,316	722,900	470.3
1970	510,174	493,878	1,014,052	14,075	23,357	37,432	3.83	975,063	944,201	689.6
1971	547,563	522,784	1,070,347	16,433	16,352	33,033	3.26	1,013,455	1,052,785	733.0
1972	558,030	534,574	1,092,604	14,780	7,875	22,257	2.08	1,068,972	1,081,634	753.5
1973	568,500	545,482	1,113,982	12,700	8,910	21,378	1.96	1,091,845	1,010,921	773.6
1974	584,552	561,439	1,145,991	12,506	19,700	32,009	2.87	1,113,723	1,127,887	801.4
1975	594,518	572,885	1,167,403	12,411	9,410	21,412	1.87	1,142,777	1,155,499	822.1
1976	605,932	585,748	1,191,680	12,972	10,921	24,277	2.08	1,166,902	1,178,928	842.5
1977	618,210	599,006	1,217,216	12,815	11,392	25,536	2.14	1,191,588	1,204,454	861.1
1978	627,238	609,163	1,236,401	12,880	4,980	19,185	1.58	1,217,062	1,227,903	875.3
1979	636,442	620,650	1,257,092	12,499	6,847	20,691	1.67	1,237,090	1,246,800	890.6
1980	648,922	634,583	1,283,505	12,505	12,627	26,413	2.10	1,257,214	1,269,270	910.0
1981	667,381	652,840	1,320,221	13,905	20,858	36,716	2.86	1,284,014	1,301,528	937.7
1982	684,771	670,200	1,354,971	14,060	17,640	34,750	2.63	1,320,278	1,338,681	965.3
1983	697,570	683,441	1,381,011	14,718	8,126	26,040	1.92	1,354,814	1,368,546	986.8
1984	708,066	694,966	1,403,032	13,123	5,586	22,021	1.59	1,380,567	1,391,775	1,005.5
1985	724,952	711,948	1,436,900	14,272	16,304	33,868	2.41	1,404,053	1,419,004	1,032.9
1986	745,203	732,195	1,477,398	14,929	24,154	40,498	2.82	1,437,490	1,457,917	1,066.7
1987	763,238	750,117	1,513,355	14,452	22,841	35,957	2.43	1,477,611	1,496,004	1,099.4
1988	785,839	773,075	1,558,914	15,611	31,252	45,559	3.01	1,515,134	1,536,423	1,118.8
1989	803,939	792,286	1,596,225	15,508	22,941	37,311	2.39	1,558,537	1,578,633	1,161.2
1990	817,518	806,872	1,624,390	15,949	13,404	28,165	1.76	1,596,710	1,612,495	1,193.1
1991 r	827,945	818,911	1,646,856	15,832	7,910	22,620	1.38	1,625,226	1,636,559	1,118.8
1992 r	837,654	829,084	1,666,738	14,683	5,036	19,648	1.20	1,647,542	1,657,900	1,205.5
1993 r	847,879	839,522	1,687,401	14,816	5,954	20,770	1.25	1,667,406	1,677,058	1,222.1
1994 p	861,076	853,274	1,714,350	14,398	12,551	26,949	1.60	1,688,539	1,702,385	1,238.8

(a) Population figures for 1971 and later refer to the estimated resident population. Estimates are based on final census results. (b) Excess of births registered over deaths registered, including deaths of defence personnel, whether in Australia or overseas, between September 1939 and June 1947. Figures prior to 1972 are on a State of registration basis; those for 1972 and later are on the basis of State of usual residence. (c) Interstate and overseas. (d) For the years 1972 to 1991 differences between the sum of natural increase and net migration, and total increase, are owing to distribution of intercensal discrepancy. (e) The rates represent total increase in population during the year expressed as a proportion per cent of the population at the end of the previous year. (f) Prior to 1988 figures are at 31 December. Those for 1988 and later are as at 30 June.

TABLE 21.2 - VITAL STATISTICS

NOTE: Figures for 1965 and earlier (i.e. those above the double lines) exclude persons of predominantly Aboriginal descent.

	Marriages registered	Divorces (b)	Live births registered (c)	Deaths registered (c)(d)	Crude rate per 1,000 of mean population (a)				Infant mortality	
					Marriages	Births	Deaths (c)(d)	Divorces	Number (c)(e)	Rate (c)(f)
1900	151		588	209	10.01	38.96	13.18		n.a.	n.a.
1901	153		853	378	6.15	34.27	15.18		100	117.23
1902	214		933	382	7.29	31.79	13.02		72	77.17
1903	278	n.a.	1,561	540	5.90	33.16	11.47	n.a.	140	89.69
1904	1,781		5,454	2,240	10.17	31.15	12.79		688	126.15
1905	2,107		7,585	2,740	7.77	27.99	10.11		593	78.18
1906	2,932		8,149	3,388	8.88	24.69	10.27		538	66.02
1907	3,205		9,200	3,774	7.47	21.44	8.80		430	46.74
1908	5,234		9,121	4,486	11.06	19.27	9.48		403	44.18
1909	5,434	720	14,228	5,058	9.74	25.50	9.07	1.3	386	27.13
1910	5,390	682	14,794	5,288	9.29	25.49	9.11	1.2	425	28.73
1911	5,389	585	15,413	5,209	8.97	25.66	8.67	1.0	384	24.98
1912	5,032	535	15,862	5,072	8.10	25.54	8.17	0.9	378	23.83
1913	5,204	530	15,928	5,364	8.13	24.89	8.38	0.8	359	22.54
1914	5,145	479	16,623	5,379	7.83	25.29	8.18	0.7	373	22.44
1915	5,080	544	16,916	5,572	7.53	25.08	8.26	0.8	384	22.70
1916	4,897	541	16,924	5,297	7.12	24.62	7.71	0.8	357	21.09
1917	5,038	536	16,731	5,554	7.20	23.90	7.94	0.8	360	21.52
1918	5,387	584	17,111	5,497	7.57	24.04	7.72	0.8	345	20.16
1919	5,323	540	16,926	5,697	7.36	23.41	7.88	0.8	366	21.62
1920	5,150	466	17,078	5,729	6.98	23.15	7.77	0.6	336	19.67
1921	5,466	582	17,064	5,810	7.23	22.58	7.69	0.8	380	22.27
1922	5,755	553	17,290	5,976	7.40	22.23	7.68	0.7	353	20.42
1923	6,023	542	16,685	6,429	7.55	20.93	8.06	0.7	328	19.66
1924	6,448	604	16,186	6,274	7.91	19.85	7.70	0.8	351	21.68
1925	7,002	637	17,194	6,902	8.25	20.25	8.13	0.8	343	19.95
1926	7,430	726	18,023	6,779	8.44	20.48	7.71	0.8	314	17.42
1927	8,086	812	19,541	7,468	8.83	21.34	8.16	0.9	398	20.37
1928	8,993	872	20,754	7,350	9.41	21.72	7.69	0.9	453	21.83
1929	9,227	889	21,618	7,543	9.28	21.74	7.59	0.9	459	21.23
1930	9,382	1,064	24,239	7,806	8.91	23.02	7.41	1.0	464	19.14
1931	9,120	1,243	22,177	7,441	8.43	20.50	6.88	1.2	348	15.69
1932	9,102	1,424	20,510	7,845	8.26	18.61	7.12	1.3	394	19.21
1933	9,295	1,761	20,207	7,778	8.24	17.92	6.90	1.6	327	16.18
1934	9,026	2,240	20,338	7,972	7.81	17.60	6.90	2.0	271	13.32
1935	9,517	4,818	20,670	7,740	8.07	17.53	6.57	4.1	273	13.21
1936	10,063	3,975	20,651	7,899	8.35	17.15	6.56	3.3	251	12.15
1937	9,404	3,387	20,611	7,794	7.66	16.79	6.35	2.8	230	11.16
1938	9,239	3,397	20,469	8,020	7.41	16.42	6.43	2.7	247	12.07
1939	9,594	3,073	20,607	8,166	7.56	16.24	6.43	2.4	239	11.60
1940	10,111	3,481	21,877	7,993	7.77	16.81	6.14	2.7	193	8.82
1941	10,455	3,842	22,236	8,187	7.81	16.61	6.15	2.9	204	9.17
1942	10,519	3,822	23,087	8,369	7.69	16.87	6.12	2.8	179	7.75
1943	9,920	4,069	21,625	8,503	7.13	15.54	6.11	2.9	232	10.72
1944	10,398	4,039	23,109	8,836	7.33	16.29	6.23	2.8	209	9.04
1945	10,379	4,001	24,236	9,307	7.12	16.62	6.38	2.7	214	8.83
1946	10,150	4,044	23,332	8,880	6.79	15.62	5.94	2.6	196	8.40
1947	10,578	3,964	25,143	9,532	6.90	16.38	6.21	2.6	214	8.51
1948	10,739	4,089	25,051	9,543	6.81	15.89	6.05	2.6	195	7.78
1949	10,613	3,845	25,356	9,407	6.59	15.75	5.84	2.4	217	8.56
1950	10,659	4,446	25,417	9,528	6.51	15.53	5.82	2.7	183	7.20
1951	10,118	4,540	25,073	9,898	6.10	15.13	5.97	2.7	175	6.82
1952	10,382	4,654	25,081	10,316	6.19	14.95	6.15	2.8	147	5.70
1953	10,366	5,024	25,138	10,293	6.09	14.77	6.05	8.46	140	5.57

Crude Birth, Death, Marriage and Divorce rates per 1,000 of the mean population at 30 June except for 1994 which is per 1,000 ated mid-year resident population. (b) Final orders - dissolution of marriages. 1975 marked the introduction of the Family Law Act which the only ground for divorce was the irretrievable breakdown of the marriage. (c) Births, deaths and divorce figures for 1982 and earlier years are on a State of registration basis. Figures for 1983 and later are based on State of usual residence. (d) Excludes fetal deaths (stillbirths) and between September 1939 and June 1947, deaths of defence personnel, whether in Australia or overseas. (e) Deaths per 1 year of age included in deaths registered. (f) Per 1,000 live births.

TABLE 21.3 - SOCIAL SERVICE BENEFICIARIES AND REPATRIATION PENSIONS

Year ended 30 June	Social service benefits					Repatriation pensions		
	Pensioners (a)			Widow	Family allowance (a)(b) (e)(f)(g)	Un-employment benefit (h)	Disability (a) (i)	Service (a) (i)
	Age (c)(d)	Disability /Invalid (c)(d)	Total Age and Invalid					
1950	24,316	4,294	28,610	2,883	133,557	267	48,878	1,953
1951	24,317	4,184	28,501	2,789	172,186	60	51,027	2,022
1952	24,782	3,964	28,746	2,676	183,257	57	52,071	2,136
1953	25,679	3,996	29,675	2,686	192,991	844	52,607	2,343
1954	27,248	4,101	31,349	2,753	202,098	427	53,352	2,468
1955	28,833	4,191	33,024	2,848	212,025	157	54,117	2,692
1956	30,244	4,425	34,669	3,015	220,792	473	54,427	3,648
1957	32,192	5,039	37,231	3,243	230,922	1,940	54,987	4,306
1958	33,124	5,519	38,643	3,542	237,732	2,330	55,251	4,672
1959	34,629	5,941	40,570	3,833	245,090	2,852	56,008	5,009
1960	36,575	6,152	42,727	4,039	250,449	2,512	56,644	5,344
1961	37,656	6,945	44,601	4,348	257,037	2,154	57,123	6,101
1962	39,104	7,826	46,930	4,570	266,067	2,932	57,947	7,115
1963	40,661	8,170	48,831	4,486	270,736	2,674	57,580	7,526
1964	41,819	8,306	50,125	4,734	283,775	2,677	57,047	7,754
1965	42,706	8,615	51,321	4,926	288,486	1,679	55,920	7,780
1966	43,876	8,575	52,451	5,071	295,303	785	54,560	7,757
1967	45,741	8,307	54,048	5,228	306,325	718	52,967	7,674
1968	48,850	8,310	57,160	5,482	317,491	608	51,193	7,586
1969	50,432	8,413	58,845	5,559	329,593	524	49,526	7,298
1970	56,017	7,933	63,950	6,086	333,597	474	47,993	7,783
1971	58,224	8,155	66,379	6,392	347,585	872	46,514	7,767
1972	60,523	8,485	69,008	6,795	358,907	2,808	45,079	7,864
1973	68,701	9,518	78,219	7,948	364,590	4,960	44,093	9,599
1974	76,124	10,406	86,530	8,763	360,989	2,863	42,807	10,669
1975	79,831	10,961	90,792	9,442	368,626	9,317	41,747	11,814
1976	84,087	12,265	96,352	10,027	373,149	13,598	40,619	13,472
1977	86,470	13,263	99,733	10,691	376,346	15,706	39,459	15,338
1978	94,491	13,653	108,144	11,494	377,545	20,470	38,053	16,975
1979	96,558	15,045	111,603	12,232	371,315	(k)29,000	36,883	18,794
1980	98,887	15,894	114,781	12,476	375,013	(k)29,800	35,857	21,131
1981	101,042	16,352	117,394	12,526	377,113	28,638	34,920	23,704
1982	103,397	17,195	120,592	12,654	385,708	31,636	34,696	26,121
1983	105,784	18,598	124,382	12,830	391,885	50,992	34,726	29,346
1984	103,889	21,124	125,013	12,934	393,952	(k)59,400	34,808	32,640
1985	102,943	23,889	126,832	12,977	396,851	(k)57,900	34,952	34,815
1986	103,085	25,769	128,854	12,817	388,251	(k)54,358	35,223	36,423
1987	103,339	27,886	131,225	12,647	388,360	56,441	31,760	36,532
1988	103,743	28,522	132,265	11,898	367,107	46,091	31,362	36,798
1989	104,816	29,706	134,522	6,901	366,490	35,621	30,761	36,246
1990	106,301	30,590	136,891	6,488	362,930	34,770	30,285	35,570
1991	109,592	32,508	142,100	6,070	371,453	55,756	29,776	35,003
1992	115,397	35,136	150,533	5,816	373,002	78,420	34,514	29,355
1993	121,387	36,817	158,204	5,545	373,295	79,903	34,047	29,005

(a) Number at 30 June. (b) Previously child and student endowment. Name of benefit, rates and conditions changed from 15 June 1976. (c) Prior to June 1957 excludes pensioners in benevolent homes. (d) At 30 June 1940 invalid pensioners who qualified were reclassified as age pensioners. (e) Prior to 30 June 1957 excludes endowed children in institutions. (f) Child endowment commenced 1 July 1941 for second and subsequent children. From 20 June 1950 endowment extended to include first or only children. (g) From 14 January 1964 includes students aged 16 and under 21; extended to 25 years in 1976. (h) Average number of persons on benefit at end of each week. (i) Includes pensions paid to incapacitated veterans and to dependants of incapacitated or deceased veterans. (j) Comprises pensions paid to veterans and their dependants. (k) Estimated.

TABLE 21.4 - LIVESTOCK; WOOL PRODUCTION; AGRICULTURE

Year (a)	Livestock (b)			Wool production (c)		Area and production of principal grain crops (e)			
	Cattle	Sheep	Pigs	Quantity	Gross value (d)	Wheat			
						Area	Yield per hectare	Production	Gross Value of Prod'n
	'000	'000	'000	tonnes	\$'000	'000 hectares	tonnes	'000 tonnes	\$'000
1840	2	31	2	n.a.	n.a.	1	1.11	1	n.a.
1850	13	128	3	n.a.	n.a.	2	n.a.	n.a.	n.a.
1860	32	260	11	298	n.a.	6	1.00	6	n.a.
1870	45	609	13	811	n.a.	11	0.79	9	n.a.
1880	64	1,232	24	1,970	n.a.	11	0.62	7	n.a.
1890	131	2,525	29	3,161	n.a.	14	0.92	13	n.a.
1900	339	2,434	62	4,323	n.a.	30	0.70	21	310
1910	825	5,159	58	13,210	2,141	236	0.68	161	2,162
1920	850	6,533	61	18,947	4,552	516	0.65	333	11,023
1930	813	9,883	101	32,451	4,829	1,601	0.91	1,456	12,201
1940	789	9,516	218	32,362	7,889	1,062	0.54	573	8,648
1950	865	10,923	79	42,071	47,237	1,171	0.89	1,048	51,339
1960	1,030	16,412	131	72,979	75,302	1,505	1.06	1,597	82,361
1961	1,100	17,151	176	82,652	73,863	1,627	1.07	1,739	92,290
1962	1,218	18,314	174	83,159	79,283	1,773	1.01	1,788	100,023
1963	1,298	18,727	131	80,366	80,071	1,944	1.01	1,973	107,023
1964	1,299	20,165	128	95,053	116,331	1,878	0.76	1,424	74,389
1965	1,258	22,392	137	91,170	93,275	2,085	0.82	1,717	88,557
1966	1,271	24,427	144	108,116	115,183	2,489	1.12	2,780	153,050
1967	1,357	27,370	161	119,681	121,509	2,569	1.09	2,809	153,157
1968	1,427	30,161	183	131,379	116,653	2,690	1.08	2,911	170,102
1969	1,546	32,901	220	164,307	158,264	2,952	1.04	3,060	151,306
1970	1,681	33,634	250	144,527	120,819	2,747	0.66	1,815	90,961
1971	1,781	34,709	278	151,808	92,009	2,361	1.25	2,957	153,227
1972	1,975	34,405	427	170,219	135,137	2,042	1.06	2,165	115,934
1973	2,182	30,919	476	140,649	225,041	2,437	0.82	2,003	109,399
1974	2,330	32,451	344	143,147	251,712	2,978	1.41	4,211	461,049
1975	2,544	34,476	264	172,659	218,859	2,810	1.17	3,277	361,211
1976	2,654	34,771	260	174,807	242,027	3,171	1.30	4,122	427,507
1977	2,464	31,158	242	156,237	291,358	3,314	0.98	3,249	290,489
1978	2,271	29,823	237	143,127	258,034	3,609	0.82	2,945	292,901
1979	2,092	30,265	271	150,284	286,601	3,706	1.19	4,400	546,827
1980	2,065	30,431	293	147,840	348,214	4,121	0.91	3,739	571,158
1981	2,033	30,764	289	160,096	401,030	4,333	0.77	3,315	508,734
1982	1,942	30,268	263	145,126	378,540	4,593	1.05	4,803	762,706
1983	1,754	30,164	300	148,190	395,896	4,865	1.14	5,534	982,505
1984	1,730	29,518	300	141,359	407,451	4,746	0.91	4,316	702,330
1985	1,673	31,574	274	170,030	503,963	4,652	1.41	6,580	1,134,766
1986	1,690	33,213	278	175,859	577,273	4,148	1.05	4,362	736,334
1987	1,660	33,463	295	188,773	716,263	4,260	1.26	5,377	836,016
1988	1,705	33,951	307	188,527	1,252,674	3,312	1.17	3,882	649,969
1989	1,702	37,090	285	203,173	1,395,116	3,297	1.58	5,225	1,122,328
1990	1,672	38,422	272	236,079	1,253,637	3,476	1.38	4,800	951,537
1991	1,566	36,465	270	222,252	874,360	3,632	1.50	5,448	744,797
1992	1,649	34,060	318	182,027	608,237	3,230	1.47	4,736	950,333
1993	1,648	32,965	305	203,626	604,818	3,669	1.63	5,979	1,083,842
1994	1,806	31,952	312	212,266	604,700	3,852	1.74	6,689	1,156,900

(a) Figures relate to varying time periods (e.g. year ended 30 June, year ended 31 December, year ended 31 March), owing to changes in the method of data collection. (b) From 1943 figures relate to the season ended 31 March. (c) Comprises shorn, dead and fellmongered wool, and wool exported on skins. For 1947 and earlier, year ended 31 December; for the years 1949 to 1964 figures are for the year ended 31 March. From 1965 figures relate to the year ended 30 June in the following year. (d) Figures for 1949 and 1951 to 1955 exclude distributions of profits under the 1939-1945 War-time Wool Disposals Plan, aggregating \$13,869,934. Separate State figures are not available for distributions made from 1956 to 1958 when payments were virtually complete. (e) From 1944 figures relate to the season ended 31 March.

Historical Statistics

TABLE 21.4 - AGRICULTURE - continued

Year (a)	Area and production of principal grain crops (b)—continued						Gross value of primary commodities produced (d)	
	Oats		Barley		Hay (all kinds)		Area used for crops (c)	
	Area	Production	Area	Production	Area	Production		
	'000 hectares	'000 tonnes	'000 hectares	'000 tonnes	'000 hectares	'000 tonnes	'000 hectares	\$'000
								\$'000
1840	n.a.	n.a.	n.a.	n.a.	—	n.a.	1	n.a.
1850	n.a.	n.a.	n.a.	n.a.	1	n.a.	3	n.a.
1860	—	—	1	1	2	8	10	n.a.
1870	1	1	2	2	7	21	22	n.a.
1880	—	—	2	2	8	20	26	n.a.
1890	1	1	2	2	9	25	28	n.a.
1900	2	2	1	1	42	106	81	n.a.
1910	25	14	1	1	71	182	346	n.a.
1920	78	37	4	3	108	268	730	(029,364
1930	111	60	7	4	161	500	1,939	(038,747
1940	174	59	27	16	169	381	1,614	39,520
1950	237	132	28	22	87	276	1,737	141,348
1960	502	356	170	161	129	440	2,583	256,002
1961	538	396	219	193	115	387	2,734	266,972
1962	498	366	199	165	119	402	2,823	280,475
1963	476	367	158	137	138	460	2,965	292,615
1964	455	324	121	92	117	395	2,714	300,766
1965	466	254	123	84	123	396	2,950	296,147
1966	502	422	167	147	118	421	3,419	406,097
1967	487	401	151	152	119	424	3,463	411,084
1968	469	359	168	159	129	428	3,595	428,258
1969	442	416	224	208	138	508	3,840	461,479
1970	461	281	364	273	202	576	3,916	370,557
1971	520	520	632	769	190	673	3,831	445,390
1972	454	414	911	1,000	177	653	3,751	461,581
1973	297	212	744	640	224	664	3,855	574,665
1974	325	383	510	626	220	734	4,133	1,034,191
1975	262	250	387	329	164	508	3,758	845,169
1976	320	386	419	505	163	536	4,207	996,633
1977	372	347	452	553	169	560	4,416	959,160
1978	415	416	614	751	191	597	4,910	993,889
1979	427	491	616	778	184	586	4,993	1,343,932
1980	370	399	523	632	208	636	5,280	1,572,744
1981	382	384	535	504	240	703	5,547	1,678,031
1982	432	442	580	576	255	711	5,963	1,874,267
1983	461	534	603	717	252	754	6,379	2,196,230
1984	448	456	771	797	238	676	6,526	1,940,863
1985	351	460	965	1,431	226	747	6,723	2,602,205
1986	288	338	826	1,024	201	633	5,970	2,213,118
1987	302	414	468	601	218	681	5,930	2,554,658
1988	373	502	461	617	243	778	5,334	2,991,232
1989	389	618	383	552	248	873	5,082	3,719,597
1990	340	529	421	628	229	811	5,174	r3,369,132
1991	323	496	498	742	219	772	5,354	2,736,407
1992	367	614	554	900	239	901	5,216	2,849,384
1993	332	578	611	1,061	198	763	5,668	3,114,773
1994	268	511	799	1,381	199	812	6,100	3,365,074

(a) Figures relate to varying time periods (e.g. year ended 30 June, year ended 31 December, year ended 31 March), owing to changes in the method of data collection. (b) From 1944 figures relate to the season ended 31 March. (c) Excludes pasture hay, and from 1967 also excludes lucerne. (d) Estimated value of recorded production based on wholesale prices realised at principal market. (e) From 1980 excludes pearling and whaling. (f) Includes hunting.

TABLE 21.5 - PRIMARY PRODUCTION - MISCELLANEOUS

Year	Gold production (a) (b)		Coal production (b)		Average values f.o.b. (c)	
	Quantity	Value	Quantity	Value	Wool (greasy) per kg (d)	Wheat per tonne (e)
	'000 grams	\$'000	'000 tonnes	\$'000	cents	\$
1890	622	171	—	—	n.a.	—
1900	43,980	12,015	120	110	n.a.	5.51
1910	45,753	12,494	266	227	16.20	14.85
1920	19,222	6,951	469	701	28.26	26.33
1930	13,001	3,729	509	770	19.37	16.69
1940	37,044	25,393	548	729	25.68	11.19
1950	18,973	18,933	827	2,575	105.91	57.03
1951	19,533	19,451	862	3,434	263.50	62.25
1952	22,706	23,696	843	4,915	138.10	62.64
1953	25,629	26,598	900	6,146	148.04	63.57
1954	26,469	26,627	1,034	7,178	156.20	60.90
1955	26,189	26,749	919	6,179	135.39	52.22
1956	25,256	26,405	843	5,448	112.66	46.57
1957	27,900	29,102	852	5,105	144.67	48.12
1958	26,967	28,357	885	4,561	130.80	56.35
1959	26,967	28,388	926	4,713	91.87	51.76
1960	26,625	28,140	937	4,878	115.37	49.48
1961	27,122	28,584	778	3,361	99.10	49.91
1962	26,717	28,115	934	3,962	109.80	51.90
1963	24,883	26,375	916	3,970	111.38	52.30
1964	22,177	23,383	1,003	4,679	134.47	52.01
1965	20,497	22,381	1,010	4,410	120.58	51.66
1966	19,564	23,316	1,078	4,562	116.00	51.12
1967	17,916	21,690	1,079	4,765	117.46	54.88
1968	15,925	19,407	1,104	4,817	105.69	51.31
1969	14,961	19,040	1,120	4,853	107.60	51.26
1970	12,310	15,811	1,178	5,407	98.11	47.72
1971	10,736	13,674	1,190	5,653	75.33	48.88
1972	10,848	14,835	1,188	5,855	74.94	49.52
1973	9,264	16,718	1,154	6,422	150.21	49.67
1974	7,173	19,183	1,197	7,237	215.36	98.75
1975	6,305	29,788	1,879	12,511	144.37	126.39
1976	7,644	27,141	2,157	17,613	147.62	116.89
1977	7,619	31,586	2,339	21,896	188.10	105.10
1978	13,653	64,741	2,435	24,846	195.76	92.52
1979	12,231	78,313	2,406	34,484	207.87	116.53
1980	11,598	158,253	3,039	54,464	253.81	146.45
1981	10,532	165,376	3,127	63,100	270.01	160.32
1982	16,135	178,566	3,435	75,132	288.61	155.48
1983	22,992	334,802	3,903	95,529	303.41	168.10
1984	26,183	365,453	3,942	106,325	317.08	173.81
1985	37,425	508,892	3,673	109,120	353.01	187.09
1986	46,072	707,114	3,765	126,841	376.50	185.14
1987	64,911	1,300,079	3,782	n.p.	430.31	144.86
1988(f)	r107,290	r1,913,146	r3,790	r158,004	651.33	146.18
1989	r135,281	r2,077,235	r3,900	r166,021	721.94	202.00
1990	r176,347	r2,794,000	r4,831	r214,254	627.18	223.06
1991	r171,960	r2,666,335	r5,114	r228,562	374.30	201.31
1992	r181,286	r2,739,447	r5,655	r251,763	374.28	187.26
1993	r183,487	r3,139,858	r5,453	r247,611	359.27	215.38
1994	r192,439	r3,256,793	r5,035	r235,088	341.86	186.49

(a) Prior to 1971 comprises gold refined at the Mint and gold contained in gold-bearing materials exported. (b) From 1971 covers gold and coal production as notified by the Department of Minerals and Energy. (c) From 1969 figures relate to year ended 30 June. (d) From 1978 figures relate to foreign exports only. (e) From 1920 figures relate to year ended 30 June. (f) Prior to 1940 averages generally are based on exports of the previous season's wheat; from 1940 they relate to exports during the year ended 30 June. (g) From 1988 figures relate to year ended 31 December

TABLE 21.6 - SECONDARY PRODUCTION

Year	Manu- facturing estab- lish- ments(b)	Persons emp- loyed (c)	Wages and salaries (d)	Turn- over (e)	Value added (f)	Production of selected commodities						Timber from local logs (l)
						Bricks (g)	Scoured wool (h)	Bacon and ham (i)	Butter (j)	Flour (plain) (k)	Cheese (k)	
	No.	No.	\$'000	\$'000	\$'000	'000	tonnes	tonnes	tonnes	tonnes	tonnes	'000 cu m
1900	632	11,166	2,589	n.a.	n.a.	25,234	n.a.	n.a.	132	11,375	n.a.	266
1910	822	14,894	3,532	10,158	5,472	23,162	n.a.	n.a.	291	33,401	n.a.	412
1920	998	16,942	6,073	26,283	9,708	31,838	n.a.	850	553	108,976	n.a.	325
1930	1,466	19,643	8,310	33,783	14,976	47,720	n.a.	1,180	2,143	109,402	n.a.	377
1940	2,129	22,967	9,150	40,615	18,055	43,786	2,459	2,106	6,351	127,776	382	360
1950	3,023	40,733	30,586	172,956	522,088	58,943	7,110	3,599	6,878	144,691	712	363
1960	4,279	49,651	83,285	431,165	172,747	110,359	15,271	3,228	7,494	136,780	1,466	532
1961	4,334	50,666	90,255	481,140	193,262	119,998	13,420	3,214	7,784	152,622	1,373	496
1962	4,418	51,033	92,840	486,988	196,083	119,868	14,459	3,556	7,603	128,007	1,386	505
1963	4,492	53,435	99,880	517,899	216,422	131,176	13,312	3,899	7,075	123,296	1,462	486
1964	4,609	55,705	108,515	555,058	230,511	155,792	12,464	3,841	7,026	129,996	1,530	517
1965	4,734	58,097	119,978	616,422	260,637	146,057	12,040	4,047	7,887	121,906	1,838	550
1966	4,906	60,282	134,171	678,751	288,803	140,611	12,107	4,357	8,225	103,115	1,230	552
1967	5,167	63,757	153,597	765,224	335,788	163,166	12,148	4,654	6,529	91,725	1,726	533
1968	5,404	67,335	175,100	887,372	388,257	207,575	12,662	5,173	6,009	100,418	1,983	557
1969	2,585	59,853	183,168	919,555	361,473	273,078	14,415	5,591	6,332	96,641	2,022	444
1970	2,705	62,597	208,410	1,028,778	414,999	288,949	14,940	5,399	5,915	92,635	1,718	450
1971			(m)			240,323	10,724	4,863	5,425	96,411	1,917	449
1972	2,727	64,217	255,879	1,240,106	472,013	227,581	17,009	5,116	5,988	84,227	1,979	407
1973	2,814	64,074	275,455	1,375,859	501,034	278,610	11,987	5,257	5,324	77,680	1,869	405
1974	2,818	67,884	346,942	1,741,029	658,412	304,178	10,791	5,530	5,223	79,114	1,922	408
1975	1,974	65,852	434,272	2,032,374	779,842	262,905	11,779	5,294	4,981	84,486	2,291	392
1976	2,054	65,953	508,931	2,432,654	944,459	328,356	13,969	5,439	4,531	78,447	2,673	388
1977	2,035	66,750	594,514	2,882,421	1,151,619	385,942	15,818	5,836	3,340	n.a.	2,074	375
1978	2,037	65,740	629,095	3,031,505	1,208,749	357,391	13,308	5,666	2,212	n.a.	1,812	386
1979	2,202	65,232	670,772	3,498,828	1,321,683	381,092	16,129	5,516	1,373	n.a.	2,364	341
1980	2,301	65,987	734,204	4,259,065	1,643,325	404,954	20,128	5,930	995	n.a.	2,866	349
1981	2,426	68,870	869,223	4,902,236	1,876,664	381,909	21,645	6,062	834	n.a.	3,342	347
1982	2,603	70,799	1,013,397	5,490,999	2,052,683	391,743	19,574	6,074	799	n.a.	3,322	334
1983	2,499	64,980	1,038,300	5,596,500	2,040,900	279,164	13,747	6,405	914	n.a.	3,417	257
1984	2,408	61,997	1,047,393	5,922,692	2,136,745	n.p.	17,053	6,807	1,269	n.a.	3,665	265
1985	2,451	64,242	1,137,558	6,788,471	2,513,218	n.p.	21,938	7,862	1,582	n.a.	3,736	305
1986			(m)			n.p.	22,992	8,174	1,595	n.a.	3,400	329
1987	2,660	69,327	1,406,965	8,215,095	2,998,694	n.p.	29,109	8,502	1,400	n.a.	3,727	317
1988	2,675	72,069	1,604,782	9,416,932	n.a.	n.p.	25,820	8,377	1,505	n.a.	3,772	319
1989	2,651	72,722	1,710,547	10,578,958	n.a.	n.a.	19,475	9,937	1,139	n.a.	3,586	324
1990 (n)	2,561	67.0	1,786.7	13,128.4	5,728.1	n.a.	19,511	9,937	1,339	n.a.	4,129	955
1991	3,510	64.5	1,779.7	13,114.6	n.a.	n.a.	22,815	10,674	1,478	n.a.	5,256	263
1992	3,645	62.5	1,785.0	12,903.0	n.a.	n.a.	27,320	9,974	2,046	n.a.	5,380	259
1993	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.a.	n.y.a.	10,574	2,665	n.a.	5,804	n.a.

(a) From 1930, year ended 30 June. (b) Excludes details of single establishment manufacturing enterprises employing fewer than four persons. For details of breaks in series refer to publications of Censuses of Manufacturing Establishments statistics. (c) Average over whole year including working proprietors. Prior to 1926-27 includes fellers and haulers employed by sawmills. From 1988, employment at 30 June. (d) Figures for 1929-30 and later exclude amounts drawn by working proprietors. (e) Selling value 'at the factory'. (f) Value added in course of manufacture, representing sum available for payment of wages, rent, depreciation, other sundry expenses and for interest and profit. (g) For years prior to 1964-65 figures represent clay bricks only (all sizes). (h) Excludes fellmongered, dead or waste wool. (i) From 1977-78 excludes canned bacon and ham. (j) For 1917 and earlier years, includes butter made on farms. Source: from 1977-78 to 1980-81, Western Australian Department of Agriculture; from 1981-82, the Australian Dairy Corporation. (k) Source: 1933-34 to 1967-68, annual manufacturing census; 1968-69 to 1970-71, Commonwealth Dairy Produce Equalisation Committee Limited; from 1971-72 to 1980-81, Western Australian Department of Agriculture; from 1981-82, the Australian Dairy Corporation. (l) Prior to 1968-69, figures also include hewn timber. (m) No census of manufacturing establishments was conducted for this year. (n) From 1990, persons employed is in '000, wages and salaries in \$ millions and turnover in \$ millions.

TABLE 21.7 - BUILDING COMPLETED (a)

Year ended 30 June	Houses (b) (c)		Alterations and additions (f) to residential buildings			Non-residential building (g)				Total building (e)
	Number (d)	Value (e)	Other Residential buildings (b)(c)		Factories	Offices	Edu- cational	Total		
			Number of units	Value (e)						
		\$m		\$m	\$m	\$m	\$m	\$m	\$m	\$m
1947	1,792	3.5	—	—	—	0.1	n.a.	n.a.	0.7	4.2
1948	2,771	5.8	—	—	—	0.2	n.a.	n.a.	0.9	6.7
1949	3,244	7.6	—	—	—	0.4	n.a.	n.a.	1.8	9.4
1950	3,509	9.0	101	0.2	—	0.4	n.a.	n.a.	1.5	10.7
1951	5,160	15.0	305	0.6	—	0.4	n.a.	n.a.	2.3	17.9
1952	6,577	24.5	215	0.3	—	1.4	n.a.	n.a.	4.1	28.9
1953	7,965	38.0	100	0.3	—	1.7	n.a.	n.a.	7.5	45.8
1954	7,627	39.8	22	0.8	—	1.7	n.a.	n.a.	11.0	51.6
1955	8,792	48.4	316	1.2	—	6.2	n.a.	n.a.	18.6	68.2
1956	7,760	45.1	584	2.6	(h)	3.8	0.8	2.2	19.7	67.4
1957	5,030	29.1	365	1.5	—	2.2	2.0	1.2	16.3	46.8
1958	6,196	36.5	171	0.7	—	2.5	3.9	1.1	17.3	54.5
1959	5,846	34.4	212	0.8	—	2.8	2.4	4.6	25.3	60.5
1960	5,997	35.5	263	1.0	—	2.4	1.5	5.8	23.8	60.2
1961	5,973	38.1	440	1.6	—	4.7	4.1	8.0	32.4	72.0
1962	6,082	39.5	265	1.3	—	3.0	2.9	6.0	27.3	68.1
1963	6,593	45.8	642	3.0	—	4.9	1.6	7.7	37.7	86.4
1964	7,276	51.8	1,295	5.6	—	5.4	6.0	6.2	35.5	92.9
1965	7,445	57.2	1,841	9.0	—	6.8	2.8	8.0	40.8	107.1
1966	7,265	58.1	1,624	9.1	—	9.6	10.6	8.5	63.0	130.2
1967	8,272	78.1	1,742	9.3	—	9.8	7.1	10.5	74.7	162.1
1968	9,858	97.4	2,392	12.6	—	15.1	14.6	12.1	85.5	195.4
1969	12,840	133.3	3,491	22.4	—	15.8	10.9	14.1	99.2	254.8
1970	13,933	151.3	5,596	40.5	—	16.6	14.3	13.3	111.6	303.4
1971	11,900	149.3	5,013	40.0	0.4	18.0	39.7	20.6	175.4	365.0
1972	13,209	165.5	1,595	13.9	1.2	21.3	19.4	16.3	150.8	331.4
1973	13,660	163.4	920	7.3	1.8	15.6	21.2	24.8	151.5	324.0
1974	12,517	176.4	3,546	32.8	2.8	23.4	19.0	21.8	139.2	351.2
1975	10,994	198.6	3,300	38.9	4.4	18.2	18.4	40.0	170.1	412.0
1976	12,080	253.8	2,948	44.0	8.7	22.4	45.7	58.3	227.3	533.8
1977	15,155	395.0	6,152	113.9	15.4	26.6	43.5	29.5	226.4	750.7
1978	12,685	378.8	4,681	98.9	21.5	34.6	18.2	46.1	234.1	733.3
1979	11,148	349.1	3,507	74.9	30.5	44.0	33.2	56.3	339.3	793.8
1980	11,648	380.9	4,156	93.2	33.3	51.5	49.9	33.2	301.9	809.4
1981	10,120	375.5	4,531	108.0	37.5	37.0	75.0	29.6	308.8	829.7
1982	9,440	398.5	5,255	165.0	51.9	52.6	131.5	39.9	495.6	1,111.0
1983	9,070	372.5	4,020	143.4	47.4	45.2	152.1	37.7	464.3	1,027.5
1984	10,340	407.4	2,124	75.9	41.0	19.0	75.0	45.1	351.0	875.4
1985	14,000	583.9	3,735	115.3	51.9	27.9	55.6	30.7	357.5	1,108.6
1986	12,620	615.7	4,217	158.1	60.5	91.5	149.9	65.3	630.8	1,465.1
1987	12,330	651.5	3,619	144.3	70.4	39.0	155.8	99.2	795.0	1,661.2
1988	12,390	694.4	3,518	140.6	80.2	63.4	208.1	120.9	884.5	1,799.7
1989	14,660	906.9	4,631	193.6	99.5	81.3	263.6	65.1	959.5	2,159.5
1990	17,690	1,296.1	7,229	367.9	142.0	97.4	343.5	161.9	1,194.0	3,000.0
1991	r11,385	904.3	3,959	240.6	143.5	59.3	203.1	117.5	761.4	2,049.8
1992	11,539	892.7	3,377	195.5	139.6	19.1	611.6	91.6	1,081.0	2,308.9
1993	14,368	1,064.0	5,436	343.5	137.0	42.3	313.2	130.5	882.0	2,426.5
1994	r16,069	r1,284.3	r5,770	r370.3	r143.3	r46.5	r87.0	r123.0	r744.4	r2,542.5
1995	17,282	r1,490.3	6,702	473.5	169.9	77.6	85.3	142.5	950.1	3,083.8

(a) From 1981 figures are not strictly comparable with those for earlier periods. (b) Prior to 1970-71 figures include alterations and additions to dwellings. Data for 1970-71 and later years relate to new dwellings only. (c) From July 1973 changes in the classification of residential buildings mean that figures for earlier years are not comparable. (d) From 1981 numbers of new houses are rounded to nearest ten units. (e) Excludes the value of land. (f) Valued at \$10,000 and over. (g) From 1 July 1990, valued at \$50,000 and over (includes alterations and additions). From 1 July 1985 to 30 June 1990, valued at \$30,000 and over (includes alterations and additions). Prior to 1 July 1985, valued at \$10,000 and over (includes alterations and additions). (h) Not available separately; included with Houses and Other residential buildings as appropriate.

TABLE 21.8 - TRANSPORT; CUSTOMS AND EXCISE

Year	State Government railways (a)		Private railways	Air passenger movements Perth Airport		Customs and excise gross revenue (c)		
	Route kilometres at end of year (b)	Paying goods	Route kilometres at end of year	Internal	International	Customs	Excise	Total
		'000 t		'000	'000	\$'000	\$'000	\$'000
1870	—	—	—	..	..	81	—	81
1880	55	2	61	..	..	186	—	186
1890	303	62	620	..	..	356	—	356
1900	2,181	1,406	1,003	..	..	1,889	63	1,952
1910	3,452	2,278	1,452	..	..	1,543	213	1,756
1920	5,695	2,656	1,477	..	..	1,311	799	2,110
1930	6,616	3,587	1,363	n.a.	..	3,882	1,527	5,409
1940	7,051	2,702	1,337	n.a.	..	3,769	2,395	6,164
1950	6,843	2,889	1,246	n.a.	..	10,166	10,943	21,109
1951	6,804	3,082	1,210	n.a.	..	10,839	11,973	22,812
1952	6,619	3,112	1,210	n.a.	n.a.	14,045	16,312	30,357
1953	6,611	2,661	1,165	n.a.	n.a.	9,908	18,395	28,303
1954	6,616	3,257	1,220	n.a.	n.a.	12,241	19,447	31,688
1955	6,616	3,461	1,204	n.a.	n.a.	12,196	21,812	34,008
1956	6,629	3,854	1,168	n.a.	n.a.	8,473	24,092	32,565
1957	6,626	4,291	1,136	n.a.	n.a.	5,504	30,078	35,582
1958	6,626	3,647	925	n.a.	n.a.	5,476	32,547	38,023
1959	6,626	3,976	925	n.a.	n.a.	4,800	32,398	37,198
1960	6,630	4,605	832	n.a.	n.a.	5,614	33,634	39,248
1961	6,635	4,911	755	n.a.	n.a.	7,470	33,835	41,305
1962	6,198	5,428	898	n.a.	n.a.	7,156	35,705	42,861
1963	6,111	4,870	888	n.a.	n.a.	8,996	35,944	44,940
1964	5,918	5,271	665	n.a.	n.a.	10,369	37,839	48,208
1965	6,008	5,133	34	n.a.	n.a.	10,692	43,349	54,041
1966	6,030	6,486	460	270	26	15,251	53,536	68,787
1967	6,140	7,999	455	294	36	13,569	58,176	71,745
1968	6,140	9,053	455	340	49	19,468	62,903	82,371
1969	6,157	9,078	882	382	54	21,202	69,289	90,490
1970	6,161	10,837	884	467	69	24,649	76,637	101,286
1971	6,175	13,457	884	541	84	32,262	88,978	121,240
1972	6,116	13,867	884	524	105	30,072	101,883	131,955
1973	6,168	13,706	1,220	596	117	25,714	106,054	131,768
1974	6,192	15,059	1,222	668	139	30,612	138,197	168,809
1975	6,075	16,348	1,181	681	165	44,114	148,310	192,424
1976	6,163	17,812	1,179	658	197	46,767	183,838	230,605
1977	6,165	19,003	1,155	746	206	63,037	203,852	266,889
1978	5,764	18,625	1,150	815	225	68,118	216,929	285,047
1979	5,764	19,288	1,155	879	261	71,704	256,486	328,190
1980	5,773	21,388	1,159	928	325	83,620	260,299	343,919
1981	5,773	20,271	1,160	960	377	110,939	283,499	394,438
1982	5,609	19,776	1,181	1,027	434	128,866	198,397	327,263
1983	5,610	19,791	1,177	1,005	414	130,752	379,889	510,641
1984	5,623	19,870	1,177	1,075	455	133,088	492,117	625,205
1985	5,563	22,085	1,285	1,195	502	176,416	496,172	672,588
1986	5,553	20,877	1,185	1,264	569	196,027	444,311	640,338
1987	5,553	21,264	1,185	1,432	649	213,647	284,677	498,324
1988	5,553	21,946	1,191	1,471	714	232,397	330,699	563,096
1989	5,553	24,294	1,198	1,140	812	260,204	326,816	587,020
1990	5,554	24,906	n.a.	1,399	861	258,328	376,293	634,621
1991	5,554	24,410	n.a.	1,939	824	n.a.	n.a.	n.a.
1992	5,554	25,890	n.a.	1,909	897	n.a.	n.a.	n.a.
1993	5,583	26,523	n.a.	2,126	1,001	n.a.	n.a.	n.a.
1994	5,583	27,726	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1995	5583	29,317	n.a.	n.y.a.	n.y.a.	n.a.	n.a.	n.a.

(a) From 1900, year ended 30 June. (b) Open for general and passenger traffic. (c) From 1915, year ended 30 June.

Historical Statistics

TABLE 21.9 - MOTOR VEHICLE REGISTRATIONS; EXPORTS OF CATTLE AND SHEEP

Year	New motor vehicles registered (a)				Motor vehicles on register (d)				Exports of—	
	Motor cars (b)	Utilities, panel vans, trucks and buses	Motor cycles (c)	Total	Motor cars (e)	Utilities, panel vans, trucks and buses	Motor cycles (c)	Total	Cattle Sheep (f)	
									\$'000	\$'000
1930	n.a.	n.a.	n.a.	n.a.	31,130	11,358	7,707	50,195	1	46
1940	2,871	1,517	399	4,787	38,907	25,026	6,789	70,222	—	65
1950	8,926	4,707	2,346	15,979	48,632	43,206	12,897	104,735	5	426
1951	8,201	6,610	2,802	17,613	56,235	47,908	14,535	118,678	9	616
1952	8,836	5,750	2,740	17,326	64,277	52,627	16,047	132,951	23	631
1953	6,879	4,881	1,416	13,176	69,917	56,445	15,565	141,927	23	501
1954	9,926	5,601	1,258	16,785	78,312	60,362	15,243	153,917	29	568
1955	12,394	5,993	1,202	19,589	90,255	63,870	14,662	168,787	68	612
1956	10,100	5,203	1,089	16,392	99,206	62,809	12,959	174,974	177	625
1957	9,321	4,418	1,192	14,931	104,506	63,315	12,731	180,552	243	923
1958	10,140	5,562	1,702	17,404	111,825	63,598	12,631	188,054	308	841
1959	10,389	5,140	2,071	17,600	119,957	65,588	12,814	198,359	396	764
1960	13,492	5,695	1,949	21,136	130,476	68,702	12,876	212,054	325	845
1961	15,161	5,542	1,080	21,783	141,612	70,974	12,589	225,175	318	881
1962	17,082	5,833	902	23,817	155,447	74,224	12,390	242,061	55	1,254
1963	23,175	6,367	754	30,296	169,800	75,500	11,500	256,800	160	1,495
1964	24,958	7,013	628	32,599	186,200	77,700	10,200	274,100	331	1,433
1965	23,304	6,897	553	30,754	197,800	78,500	8,900	285,200	427	1,376
1966	23,418	9,170	706	33,294	212,600	83,300	8,400	304,300	283	1,633
1967	27,922	9,404	1,158	38,484	231,200	86,300	8,400	325,900	381	1,771
1968	33,368	10,448	1,525	45,341	252,300	90,800	8,900	352,000	1,229	2,191
1969	35,379	11,018	1,539	47,936	275,300	94,500	9,600	379,400	972	2,943
1970	37,764	11,138	1,945	50,847	301,000	99,900	10,800	411,700	760	2,876
1971	37,769	10,872	2,718	51,359	328,500	104,900	12,200	445,600	1,159	2,710
1972	37,274	9,819	3,985	51,078	346,300	104,600	14,200	465,100	1,865	3,871
1973	36,904	11,425	4,914	53,243	364,400	107,400	16,800	488,600	1,661	7,959
1974	40,302	12,241	7,062	59,605	389,300	112,700	21,000	523,000	2,111	12,539
1975	41,474	13,693	6,613	61,780	414,800	125,000	24,600	564,400	1,498	12,862
1976	40,338	15,863	5,731	61,932	437,200	140,000	27,600	604,800	1,464	14,436
1977	44,363	17,362	3,887	65,612	473,731	153,174	28,022	654,927	2,533	34,905
1978	40,990	16,538	3,339	60,867	500,365	167,107	28,051	695,523	3,071	35,985
1979	40,882	14,025	2,713	57,620	518,705	174,064	26,916	719,685	3,182	45,915
1980	40,232	13,716	4,600	58,548	535,613	179,844	29,531	744,988	1,748	91,763
1981	41,660	15,223	6,088	62,971	552,552	187,599	33,009	773,160	2,899	100,340
1982	42,329	16,079	5,835	64,243	573,400	197,344	35,213	805,957	3,039	94,825
1983	38,812	15,043	5,147	59,002	576,893	196,539	35,852	809,284	5,476	94,630
1984	39,737	15,199	3,969	58,905	592,495	201,754	35,770	830,019	5,824	92,700
1985	46,070	17,956	4,310	68,336	615,442	214,649	36,229	866,320	3,432	82,430
1986	42,645	13,676	3,350	59,671	632,182	218,851	36,324	887,357	5,339	84,317
1987	33,642	10,198	2,305	46,145	647,734	223,030	35,287	906,051	4,969	105,015
1988	36,040	10,617	2,215	48,872	670,158	230,161	35,442	935,761	(g)	(g)
1989	44,100	14,149	2,522	60,771	708,253	241,698	36,294	986,245	3,371	62,256
1990	42,728	13,735	2,875	59,338	746,194	254,009	37,452	1,037,655	6,094	62,046
1991	36,926	10,874	2,784	50,584	764,157	259,246	38,240	1,061,643	r7,003	43,432
1992	41,979	9,573	1,814	53,366	781,600	262,294	37,816	1,081,710	r3,911	67,636
1993	45,567	11,556	2,117	59,240	803,728	269,408	37,894	1,111,030	r13,204	r121,934
1994	48,589	12,486	2,103	63,178	827,837	277,466	37,078	1,142,381	29,480	148,926
1995	51,947	12,952	2,344	67,243	855,129	286,2439	37,440	117,812	66,740	125,522

(a) Year ended 30 June. (b) From 1959 includes station wagons previously included with commercial vehicles. (c) Including motor scooters. (d) From 1929, at 30 June; for earlier years, at various dates. For years before 1946, excludes Commonwealth Government-owned vehicles; from 1946, includes Commonwealth Government-owned vehicles other than those of defence services. From 1956 to 1976, series based on the results of the periodic census of motor vehicles. Improvements in the methodology used to produce statistics of motor vehicles on register have resulted in a break in the continuity of the series from 30 June 1983. (e) From June 1956, includes station wagons previously included with commercial vehicles. (f) Excludes interstate exports. Details are not available for publication. (g) Details not available.

Historical Statistics

TABLE 21.10 - EXPORTS OF CERTAIN COMMODITIES (a)

Year (b)	Meats—Fresh, chilled or frozen						Rock lobsters (c)		Wheat exports (d)	
	Beef and veal		Mutton and lamb		Pigmeat		Quantity	Value	Quantity	Value
	Quantity	Value	Quantity	Value	Quantity	Value				
	tonnes	\$'000	tonnes	\$'000	tonnes	\$'000	tonnes	\$'000	tonnes	\$'000
1840	—	—	—	—	—	—	—	—	—	—
1850	—	—	—	—	—	—	—	—	1	—
1860	—	—	—	—	—	—	—	—	—	—
1870	—	—	—	—	—	—	—	—	408	8
1880	—	—	—	—	—	—	—	—	—	—
1890	—	—	—	—	—	—	—	—	27	—
1900	—	—	(e)	—	—	—	—	—	54,839	813
1910	—	—	—	—	—	—	—	—	249,049	5,083
1920	300	33	—	—	—	—	—	—	679,109	12,258
1930	5,162	272	—	—	—	—	—	—	—	—
1940	4,826	329	4,665	533	2,263	324	—	—	417,214	4,669
1950	8,625	1,183	2,392	485	163	59	518	463	585,406	33,384
1951	7,699	1,221	939	217	279	113	1,436	1,517	830,346	51,688
1952	6,028	1,135	1,044	301	424	232	1,311	1,861	730,002	45,728
1953	5,016	1,437	6,589	1,463	463	303	1,329	2,085	634,639	40,347
1954	6,148	1,748	3,309	875	215	152	1,461	2,342	185,066	11,272
1955	6,776	2,038	3,225	1,328	1,049	532	1,532	2,490	526,212	27,478
1956	7,601	2,343	6,602	2,156	743	482	1,601	3,022	619,779	28,860
1957	4,127	1,221	5,788	1,741	733	588	1,618	3,514	1,273,578	61,291
1958	11,025	3,302	5,083	1,900	2,324	1,462	2,136	3,965	725,131	40,861
1959	10,535	4,342	9,944	3,177	1,983	1,178	2,715	5,281	639,647	33,113
1960	13,597	6,742	8,735	2,378	1,188	953	2,996	6,499	999,164	49,442
1961	12,413	6,141	11,367	3,901	1,894	1,501	2,316	5,881	1,428,272	71,280
1962	12,544	6,299	8,468	2,436	3,151	2,025	3,607	9,778	2,010,766	104,356
1963	17,268	9,382	7,428	2,401	2,061	1,404	3,490	8,910	1,380,372	72,197
1964	20,528	11,497	5,385	1,895	861	718	3,416	9,211	1,497,453	77,881
1965	19,360	11,730	5,040	1,981	571	516	2,672	10,592	1,102,420	56,955
1966	18,115	12,108	10,319	4,357	420	376	3,193	13,821	1,887,996	96,515
1967	16,912	11,987	9,652	3,723	565	470	3,643	13,873	2,312,777	126,918
1968	16,821	12,995	13,153	4,745	547	474	3,919	17,989	2,373,195	121,764
1969	20,210	16,939	21,523	7,218	642	564	3,038	17,133	1,521,376	77,987
1970	23,645	21,508	29,661	11,271	1,437	1,175	2,976	15,695	1,814,787	86,593
1971	20,257	17,626	24,244	9,396	1,126	895	3,155	19,413	2,670,890	130,564
1972	24,435	22,528	42,994	17,645	2,503	1,995	3,425	24,626	2,587,504	128,132
1973	33,325	36,614	39,853	26,103	7,630	6,382	3,171	20,919	2,249,934	111,744
1974	34,778	43,039	27,189	23,682	5,939	5,772	2,656	18,511	2,139,973	211,333
1975	31,083	25,993	33,240	22,107	2,283	3,037	3,328	25,258	3,241,895	409,758
1976	35,732	32,693	52,120	34,009	2,451	3,696	3,128	27,777	3,215,792	375,897
1977	53,051	53,291	60,373	48,913	1,292	1,968	4,071	47,061	3,009,101	316,258
1978	57,827	64,896	42,532	40,885	620	984	3,902	48,043	3,795,969	351,190
1979	51,932	90,216	26,250	31,059	382	693	4,170	51,064	2,208,985	257,414
1980	41,372	93,547	44,699	51,230	204	460	3,626	50,448	4,205,774	615,944
1981	40,672	87,669	44,142	57,515	144	334	2,858	42,480	2,634,951	422,433
1982	38,399	73,673	25,367	37,057	225	446	4,849	77,930	3,826,760	594,992
1983	41,659	88,972	29,073	43,133	99	344	5,424	88,175	5,031,977	845,855
1984	32,492	80,442	26,000	39,114	282	829	6,506	111,954	3,637,624	632,247
1985	30,327	77,403	21,329	33,808	150	567	4,778	126,644	4,543,782	850,090
1986	28,012	76,709	27,055	41,766	122	373	4,267	114,568	5,342,611	989,144
1987	29,928	88,348	31,010	50,305	481	1,542	4,884	143,665	4,872,265	697,557
1988	—	—	—	—	(f)	—	—	—	—	—
1989	24,980	74,722	19,844	38,006	36	133	7,750	172,779	4,995,551	1,009,103
1990	31,576	104,210	31,928	57,682	68	136	6,835	181,047	4,244,130	946,683
1991	32,038	90,710	45,219	81,803	74	180	6,854	195,603	5,013,047	708,217
1992	25,899	83,634	27,946	50,439	48	86	9,316	282,124	1,764,475	276,779
1993	28,794	95,435	31,755	67,859	61	239	12,107	283,443	5,308,934	1,143,428
1994	25,197	84,803	25,806	61,903	268	998	11,745	338,132	6,018,653	1,122,434

(a) From 1980 figures relate to foreign exports only. (b) From 1920, year ended 30 June. (c) For years 1950 to 1952, foreign exports only. Figures relate to rock lobster tails only until 1982. From 1982 figures include whole rock lobsters and tails. (d) From 1920, year ended 30 June; from 1978, excludes interstate exports. (e) Separate details not available. Total exports of fresh meats were 84 tonnes valued at \$9,164. (f) Details not available; see Chapter 12.

TABLE 21.10 - EXPORTS OF CERTAIN COMMODITIES (a) - continued

Year (b)	Flour (c)		Potatoes		Fresh and dried fruit (d)	Hides and skins	Timber (e)		Wool (f)	
	Quantity	Value	Quantity	Value	Value	Value	Quantity	Value	Quantity	Value
	tonnes	\$'000	tonnes	\$'000	\$'000	\$'000	'000 cu m	\$'000	tonnes	\$'000
1860	11	—	71	1	—	1	—	2	141	31
1870	—	—	26	—	—	—	2	10	298	99
1880	n.a.	2	—	—	—	—	6	35	811	179
1890	—	—	—	—	—	8	19	133	1,970	543
1900	47	1	113	1	1	49	33	164	3,161	523
1910	2,559	49	18	—	11	150	162	916	4,125	541
1920	117,254	5,045	1,637	54	300	482	342	1,945	11,883	1,934
1930	62,659	1,540	5,037	151	312	1,246	143	931	27,034	7,875
1940	83,159	1,301	11,953	214	740	745	143	1,251	28,487	5,558
1950	105,065	8,335	10,090	384	1,780	2,329	81	1,949	45,766	50,923
1951	144,914	11,774	11,181	506	2,295	5,294	66	1,783	41,633	112,559
1952	146,584	13,669	13,514	733	2,853	3,194	68	2,075	46,633	67,680
1953	159,883	15,090	12,860	750	4,556	3,942	112	4,147	51,489	79,122
1954	134,126	11,704	16,026	1,300	3,300	3,295	109	4,480	51,083	82,260
1955	109,172	7,219	9,020	512	3,845	2,921	99	3,847	49,811	70,563
1956	117,409	7,766	2,275	171	3,393	3,274	129	5,598	58,982	70,313
1957	115,658	7,474	7,728	736	4,598	4,650	132	6,215	57,755	87,510
1958	101,448	6,907	13,998	832	3,725	3,898	158	7,496	52,167	72,686
1959	94,854	6,337	8,577	368	3,609	3,489	183	8,415	60,280	58,537
1960	79,697	5,100	9,612	436	2,437	4,767	174	7,760	62,838	77,957
1961	122,839	7,840	7,821	437	4,636	3,828	157	7,175	71,681	74,842
1962	88,889	5,891	10,328	632	2,818	4,580	161	7,528	73,584	83,865
1963	67,652	4,645	18,032	810	4,982	4,339	155	7,241	71,058	82,107
1964	62,677	4,396	9,925	353	4,016	4,966	149	6,813	82,628	114,239
1965	83,826	5,926	12,935	841	5,165	4,177	133	6,279	79,106	98,294
1966	49,130	3,378	21,362	1,393	4,838	5,447	69	3,687	97,698	115,128
1967	34,804	2,507	17,478	692	5,704	5,377	139	7,475	106,886	126,995
1968	41,918	2,944	13,142	622	4,068	4,699	85	4,947	124,708	126,417
1969	35,100	2,433	21,944	1,149	6,552	6,013	88	5,068	144,388	157,950
1970	31,173	2,257	19,888	831	6,054	7,968	96	5,666	132,778	134,796
1971	26,670	1,958	9,390	510	7,208	5,395	79	4,808	128,388	98,289
1972	18,882	1,345	8,600	371	5,245	5,356	101	6,440	159,284	120,460
1973	9,798	859	(g)4,911	(g)334	6,135	13,945	113	7,087	146,456	220,719
1974	11,232	1,380	(g)9,576	(g)1,113	5,835	13,536	100	7,407	121,113	263,330
1975	19,281	3,439	8,527	1,217	7,547	11,195	109	9,252	114,069	167,631
1976	11,658	2,022	12,196	1,636	6,047	13,728	94	9,823	153,248	231,301
1977	11,355	2,051	7,190	1,127	5,285	24,708	78	10,152	169,674	331,164
1978	8,291	1,481	5,853	390	5,976	21,147	59	8,885	123,071	251,321
1979	7,872	1,660	2,735	373	8,703	29,280	66	10,508	150,185	326,466
1980(h)	4,342	1,055	5,292	616	10,314	34,716	72	12,226	141,262	378,557
1981	4,952	1,279	3,824	585	9,506	17,467	32	7,050	135,529	398,051
1982	1,578	594	5,466	947	10,783	16,736	25	5,830	127,308	394,367
1983	1,086	343	7,274	1,278	12,655	18,783	18	4,813	123,953	392,144
1984	3,127	833	2,806	756	10,013	23,998	20	5,251	121,511	406,207
1985	3,140	876	5,084	946	10,220	27,629	22	7,173	140,675	523,304
1986	1,750	550	2,338	511	12,573	13,979	22	7,330	153,987	614,202
1987	1,879	528	2,311	570	13,879	40,292	10	4,199	161,085	731,352
1988					(i) —					
1989	1,957	642	740	153	8,338	32,009	13	5,497	153,548	1,167,056
1990	650	276	4,271	1,000	10,575	39,078	20	7,556	124,308	779,639
1991	1,388	389	12,112	3,651	1,252	24,779	13	6,670	102,570	462,849
1992	994	367	12,364	3,725	13,352	21,678	41	10,307	160,120	660,221
1993	4,262	1,453	9,600	3,290	13,997	28,480	17	10,096	154,070	605,676
1994	8,667	2,664	11,779	3,819	16,555	17,172	18	13,249	176,414	653,592

(a) From 1981 figures relate to foreign exports only. (b) From 1920, year ended 30 June. (c) From 1973, figures include meal and flour of wheat or meslin; from 1978, figures include meal and flour of all cereal grains. (d) Includes tomatoes for 1933 and earlier years. (e) Excludes plywood and veneers and small quantities of timber for which details are not recorded. (f) Includes greasy and degreased wool. (g) Some interstate details for 1973 included in 1974. (h) Figures for flour, potatoes, fresh fruit, and hides and skins represent foreign exports only. (i) Details not available; see Chapter 12.

Historical Statistics

TABLE 21.10 - EXPORTS OF CERTAIN COMMODITIES (a) - continued

Year (b)	Iron ore and concentrates		Lead and zinc ores (c) (d)	Tin ore and concentrates	Ilmenite concentrate (including leucoxene) (e)		Iron and steel (f)	Gold mint bullion (g)	
	Quantity	Value	Value	Value	Quantity	Value	Value	Quantity	Value (h)
	'000 tonnes	\$'000	\$'000	\$'000	'000 tonnes	\$'000	\$'000	kg	\$'000
1910	—	—	4	93	—	—	5	10,389	2,835
1920	—	—	102	129	—	—	16	1,275	452
1930	—	—	19	29	—	—	3	4	1
1940	—	—	2	14	—	—	31	36,329	24,056
1950	—	—	272	49	—	—	95	2	2
1951	—	—	263	62	—	—	83	—	—
1952	53	102	1,369	107	—	—	58	12,286	13,143
1953	553	1,079	1,681	153	—	—	357	23,608	24,798
1954	592	1,157	270	97	—	—	279	13,001	13,280
1955	589	1,149	108	146	—	—	602	19,222	19,338
1956	480	936	888	322	—	—	530	12,752	12,842
1957	334	649	960	293	—	—	1,174	23,950	24,119
1958	446	870	410	166	89	1,011	2,470	6,470	6,511
1959	598	1,169	238	304	66	648	4,218	4,106	4,118
1960	809	1,601	229	415	90	713	11,198	18,662	18,738
1961	1,035	2,101	83	325	132	1,198	12,781	78,754	79,271
1962	1,069	2,209	45	563	159	1,441	13,826	14,090	12,195
1963	1,495	2,898	33	532	183	1,717	15,107	12,970	13,048
1964	1,381	2,743	18	1,080	263	2,571	15,029	11,975	12,045
1965	1,562	3,040	662	1,229	330	3,194	17,933	15,956	16,127
1966	2,657	6,967	124	1,521	430	4,181	14,458	25,909	26,147
1967	8,530	50,890	177	2,214	443	4,440	15,658	14,930	15,107
1968	14,563	104,506	58	2,330	462	4,645	11,442	11,602	11,816
1969	19,898	151,797	161	1,843	557	5,751	27,002	11,228	12,701
1970	31,542	233,580	41	1,386	573	6,068	34,306	12,037	13,874
1971	46,273	341,702	—	1,511	563	6,631	34,571	14,665	15,760
1972	48,658	347,500	—	2,043	580	7,416	36,415	17,646	21,950
1973	66,036	420,255	6	2,277	595	7,696	36,529	16,314	30,193
1974	79,286	488,239	15	2,732	728	9,774	60,811	10,093	27,393
1975	88,070	699,843	—	3,019	672	9,893	71,493	9,263	36,666
1976	83,090	772,199	—	2,538	647	9,995	60,765	13,659	50,527
1977	84,939	900,987	—	3,939	1,184	20,155	74,508	9,980	36,863
1978	80,128	935,018	—	4,947	986	17,653	50,285	10,344	50,906
1979	84,016	978,315	—	5,074	883	17,475	72,591	n.a.	(i)99,708
1980	76,725	1,025,660	220	5,841	1,119	25,433	83,447	n.a.	(i)56,317
1981	72,756	1,069,087	—	2,469	929	23,726	42,423	1,279	22,024
1982	72,532	1,195,486	11,285	1,057	890	25,003	6,645	5,054	72,060
1983	64,551	1,405,840	14,925	1,234	780	21,986	2,959	9,536	141,340
1984	80,942	1,551,299	18,420	127	1,068	35,176	2,473	21,312	308,580
1985	87,670	1,796,578	17,407	—	1,009	36,473	741	23,036	308,424
1986	80,309	1,861,779	6,040	—	999	45,149	747	28,483	458,728
1987	74,321	1,701,851	—	—	864	55,398	916	23,247	479,790
1988	—	—	—	—	(j)	—	—	—	—
1989	(k)94,949	(k)1,718,621	31,891	—	825	73,075	944	26,539	414,025
1990	(k)101,017	(k)2,142,511	52,171	—	752	73,146	1,087	19,844	331,658
1991	n.a.	n.a.	124,836	22	907	90,823	5,096	95,874	1,519,559
1992	102,906	2,701,384	218,117	—	580	54,897	2,673	166,241	2,465,878
1993	112,190	2,883,594	189,640	—	n.a.	n.a.	4,613	171,524	2,706,741
1994	119,616	2,765,138	112,715	—	n.a.	n.a.	7,900	184,018	3,285,403

(a) From 1980, figures relate to foreign exports only. (b) From 1920, year ended 30 June. (c) Includes silver-lead and silver-lead-zinc ores and concentrates. (d) Between 1971 and 1988, the value of foreign exports of lead was nil. From 1973, figures exclude interstate exports of lead ores and concentrates, and from 1978 interstate exports of zinc ores and concentrates. (e) From 1972, figures exclude foreign exports of beneficiated ilmenite; from 1978, figures also exclude interstate exports of all ilmenite and leucoxene. From April 1987 figures exclude ilmenite ores and concentrates in bags, drums and similar containers. (f) Principally pig-iron, cast iron and basic shapes and sections of iron and steel. (g) Gold sold abroad before consignment is not recorded as an export until actually shipped. (h) Includes additional premiums on sales of industrial gold. (i) Includes all processed gold, but excludes gold ores and concentrates. (j) Details not available See Chapter 20. (k) Source: Department of Minerals and Energy.

TABLE 21.11 - INTERNATIONAL AND INTERSTATE TRADE
(\$'000)

Year(a)	Imports (b)			Exports (b) (c)			Excess of -		Ships' stores
	Foreign	Interstate	Total	Foreign	Interstate	Total	Imports	Exports	
1850	n.a.	n.a.	125	n.a.	n.a.	44	80	..	n.a.
1860	318	20	338	160	16	175	163	..	3
1870	260	167	427	348	46	394	33	..	8
1880	349	358	707	736	252	988	..	280	11
1890	1,025	724	1,749	961	369	1,330	419	..	14
1900	6,574	5,350	11,924	11,246	2,250	13,496	..	1,572	208
1910	8,750	7,067	15,817	11,679	4,627	16,306	..	489	294
1920	9,918	14,819	24,737	28,918	2,392	31,311	..	6,574	827
1930	17,758	19,805	37,563	32,009	2,213	34,223	3,341	..	1,316
1940	12,568	27,450	40,017	19,256	28,518	47,774	..	7,756	1,380
1950	68,844	70,044	138,887	106,590	12,421	119,011	19,876	..	4,720
1951	80,517	95,828	176,345	197,686	18,780	216,466	..	40,122	7,249
1952	120,474	124,209	244,683	151,562	35,404	186,966	57,717	..	8,419
1953	59,748	137,213	196,961	166,286	49,659	215,945	..	18,984	10,321
1954	85,051	165,374	250,425	136,849	39,190	176,039	74,386	..	7,266
1955	101,295	182,110	283,405	137,013	47,310	184,323	99,082	..	7,865
1956	92,963	177,952	270,915	152,286	68,466	220,752	50,164	..	10,592
1957	80,423	188,680	269,103	216,599	81,545	298,144	..	29,041	12,902
1958	91,775	195,103	286,879	179,516	79,836	259,352	27,527	..	11,602
1959	89,972	202,430	292,402	174,585	68,919	243,504	48,898	..	9,482
1960	92,363	246,696	339,059	231,766	77,278	309,043	30,016	..	8,954
1961	110,531	245,474	356,005	309,332	89,922	399,254	..	43,249	10,285
1962	100,178	245,208	345,386	287,619	84,626	372,245	..	26,859	9,379
1963	112,640	313,712	426,351	246,823	91,636	338,459	87,892	..	7,904
1964	121,677	323,176	444,854	286,132	101,811	387,943	56,911	..	9,733
1965	153,540	343,899	497,439	243,078	119,954	363,033	134,407	..	9,009
1966	175,690	403,054	578,744	314,404	119,619	434,023	144,721	..	10,058
1967	159,390	474,852	634,242	421,325	116,030	537,355	96,887	..	10,936
1968	206,980	527,052	734,031	475,260	124,505	599,765	134,266	..	14,824
1969	203,533	562,312	765,846	546,366	149,892	696,258	69,588	..	14,327
1970	242,299	640,189	882,487	675,027	149,861	824,888	57,600	..	15,092
1971	278,344	726,778	1,005,122	862,421	163,812	1,026,233	..	21,111	20,561
1972	283,263	787,788	1,071,051	946,504	156,303	1,102,807	..	31,756	22,477
1973	227,305	786,177	1,013,483	1,154,359	173,839	1,328,198	..	314,715	17,542
1974	368,910	939,361	1,308,272	1,414,968	222,208	1,637,176	..	328,904	29,224
1975	577,416	1,134,510	1,711,926	1,880,082	253,424	2,133,506	..	421,580	50,157
1976	637,439	1,418,726	2,056,165	2,117,898	290,733	2,408,631	..	352,466	46,638
1977	829,411	1,641,545	2,470,955	2,596,107	305,836	2,901,943	..	430,987	64,141
1978	937,350	1,828,510	2,765,860	2,588,954	355,151	2,944,105	..	178,245	71,009
1979	1,161,164	2,044,447	3,205,611	2,820,134	446,208	3,266,343	..	60,732	72,611
1980	1,449,694	2,337,808	3,787,502	3,854,047	635,388	4,489,434	..	701,933	126,176
1981	1,663,378	2,841,110	4,504,488	3,595,048	812,996	4,408,044	96,444	..	144,285
1982	2,535,112	3,141,096	5,676,208	3,907,623	888,540	4,796,163	880,045	..	134,198
1983	2,523,046	3,160,789	5,683,835	4,797,766	1,155,698	5,953,464	..	269,129	129,484
1984	1,935,552	3,638,883	5,574,436	5,062,112	1,410,145	6,466,257	..	891,822	110,706
1985	2,155,270	4,291,229	6,446,499	6,028,430	1,507,370	7,535,850	..	1,089,351	123,237
1986	2,202,948	4,783,474	6,986,422	6,529,348	1,623,017	8,152,365	..	1,165,943	87,674
1987	2,768,663	5,071,476	7,840,139	6,911,427	1,805,667	8,717,094	..	876,955	84,476
1988	3,216,985	5,404,518	8,621,503	7,491,773	1,808,478	9,300,251	..	678,748	87,220
1989	3,581,772	6,430,737	10,012,509	8,856,643	1,777,058	10,633,701	..	621,291	72,455
1990	3,984,818	6,515,966	10,500,784	10,227,858	2,282,389	12,510,247	..	2,282,389	90,093
1991	3,635,752	5,861,550	9,497,302	12,426,818	1,970,058	14,396,876	..	4,899,574	91,871
1992	3,548,198	6,043,695	9,591,893	14,039,464	2,533,644	16,573,108	..	6,981,215	55,953
1993	4,791,817	6,368,752	11,160,569	15,659,551	2,457,598	18,117,149	..	6,956,580	68,065

(a) From 1920, year ended 30 June. (b) From 1976, excludes interstate value of horses. Details are not available for publication.
(c) Excludes ships' stores up to and including 1982. Ships' and aircraft stores for foreign owned vessels and aircraft are included in foreign and total exports from 1983 onwards. From 1982, excludes value of re-exports.

Historical Statistics

TABLE 21.12 — INDUSTRIAL DISPUTES; WAGE RATES; UNEMPLOYMENT BENEFIT

Year	Industrial disputes (a)				Award rates of pay index numbers (c)		Persons on Un-employment benefit (f)
	Number of disputes	Workers involved (b)	Working days lost		Adult male wage and salary earners (d)(e)		
			Number	Average per worker involved	Weekly	Hourly	
		'000	'000	No.			
1930	2	0.5	27.1	57.85	n.a.	n.a.	
1940	4	3.0	7.4	2.44	36.8	33.1	
1950	15	2.0	5.7	2.93	71.0	71.7	267
1951	10	4.2	5.1	1.22	85.5	85.7	60
1952	21	19.2	127.8	6.67	97.5	97.7	57
1953	11	3.7	5.0	1.36	100.4	100.7	844
1954	15	5.5	21.7	3.94	101.7	101.9	427
1955	16	9.8	9.6	0.97	106.3	106.6	157
1956	14	11.1	31.9	2.87	110.8	111.0	473
1957	14	5.4	3.1	0.57	113.9	114.1	1,940
1958	20	11.0	3.0	0.27	114.7	114.9	2,330
1959	20	11.2	11.2	1.00	120.7	120.8	2,852
1960	43	25.7	27.3	1.06	126.8	127.1	2,512
1961	22	9.7	23.2	2.40	128.8	129.0	2,154
1962	28	8.4	6.3	0.75	129.5	129.7	2,932
1963	28	42.6	32.0	0.75	132.8	133.0	2,674
1964	26	6.2	7.1	1.16	137.5	137.6	2,677
1965	33	12.6	10.0	0.79	143.5	143.5	1,679
1966	25	2.9	6.2	2.17	153.6	153.8	785
1967	26	5.1	6.0	1.18	159.6	159.9	718
1968	70	18.7	21.8	1.16	169.0	168.7	608
1969	104	59.1	101.4	1.72	179.5	179.3	524
1970	125	46.5	141.1	3.03	198.2	198.0	474
1971	132	35.8	69.4	1.94	219.5	219.4	872
1972	105	28.3	94.6	3.34	234.2	232.5	2,808
1973	160	37.6	117.3	3.12	267.9	266.3	4,960
1974	257	188.1	256.9	1.37	357.7	356.5	2,863
1975	236	53.8	100.7	1.87	401.2	398.5	9,317
1976	250	100.7	252.1	2.50	104.8	104.8	13,598
1977	229	54.9	220.5	4.02	116.0	116.0	15,706
1978	306	76.1	197.9	2.60	125.3	125.3	20,470
1979	252	169.5	348.1	2.06	131.7	131.7	(g)29,000
1980	368	69.4	191.0	2.75	145.7	145.8	(g)29,800
1981	364	72.9	244.0	3.35	166.1	166.2	28,638
1982	436	63.6	158.9	2.50	187.6	190.3	31,636
1983	300	42.3	270.6	6.40	197.2	200.9	50,992
1984	406	69.2	119.2	1.72	205.9	210.7	(g)57,514
1985	361	48.7	92.9	1.91	103.8	103.8	(g)54,028
1986	267	50.6	143.1	2.83	106.3	106.5	55,089
1987	245	43.1	115.3	2.68	110.0	110.3	52,755
1988	221	60.9	160.6	2.64	118.5	119.1	46,091
1989	226	54.7	102.1	1.87	124.4	126.7	37,285
1990	190	73.2	108.4	1.48	129.1	132.3	36,240
1991	156	63.1	119.1	1.89	134.0	134.7	55,756
1992	134	28.8	53.6	1.86	137.1	137.6	78,420
1993	111	27.6	29.5	1.07	138.5	139.3	79,903

(a) Excludes disputes involving cessation of work of less than 10 man-days. Details of the number of disputes and workers involved in disputes which commenced in any year and were still in progress during the following year are included in the figures for both years. (b) Includes workers indirectly involved, i.e. those put out of work at an establishment where a stoppage occurred but not themselves parties to the dispute. (c) End of December. Prior to 1976 - Base: weighted average wage rate for Australia, June 1985 = 100. (d) Excludes workers in rural industry. (e) Prior to June 1985, index related to wage earners only. From June 1985, relates to wage and salary earners. (f) Year ended 30 June, average number of persons on benefit at end of each week. As from 1 January 1988 includes persons receiving job search allowance. (g) Estimated.

TABLE 21.13 - CONSUMER PRICE INDEX : PERTH
(Base of each index: 1989-90 = 100.0)
Reference: Consumer Price Index (6401.0)

As at june quarter	Food	Clothing	Household equipment and operation	Transport- ation	Tobacco and alcohol	Health and personal care	Recreation and education	All groups	Per cent change(a)
1973	21.5	22.2	20.6	23.0	19.6	18.0	15.7	n.a.	20.8
1974	24.5	26.0	22.5	24.9	21.7	19.6	18.7	n.a.	23.3
1975	28.0	31.1	26.8	30.6	26.4	24.1	24.5	n.a.	28.0
1976	31.0	36.5	32.6	35.2	30.9	29.8	20.2	n.a.	31.8
1977	35.5	41.2	37.0	38.0	33.2	31.1	42.9	n.a.	36.3
1978	40.0	44.9	39.9	41.4	36.7	32.8	44.9	n.a.	39.6
1979	45.1	48.3	41.5	44.0	41.1	39.4	39.4	n.a.	43.0
1980	49.1	51.5	43.3	48.6	46.2	41.5	49.6	n.a.	47.2
1981	53.3	55.8	47.2	53.0	51.3	44.5	47.4	n.a.	51.1
1982	58.1	59.5	51.7	59.2	56.0	48.2	68.8	61.1	56.8
1983	64.6	63.4	55.4	63.7	61.7	54.5	78.6	66.8	62.4
1984	67.8	67.4	58.3	68.3	66.5	63.0	59.0	68.1	65.0
1985	72.3	71.6	61.7	71.6	72.5	67.8	61.6	72.3	69.4
1986	78.1	79.3	67.2	78.2	74.9	75.2	66.9	77.1	74.8
1987	82.8	86.5	73.3	85.0	86.7	83.9	79.3	85.3	82.6
1988	89.2	92.6	76.3	90.9	91.6	89.6	87.5	91.4	88.1
1989(b)	96.3	98.4	88.9	96.4	95.9	93.6	94.2	95.4	94.7
1990	102.8	101.6	103.8	102.9	102.1	103.8	103.8	102.3	102.9
1991	105.2	105.9	100.6	106.1	105.4	109.7	110.9	103.5	105.1
1992	107.6	108.5	89.7	107.4	109.9	111.9	116.9	105.3	105.6
1993	109.2	108.9	87.9	107.7	111.6	115.6	122.3	107.2	106.8
1994	109.9	108.5	87.8	107.9	116.0	131.8	125.5	107.5	109.1
1995	115.7	107.5	99.0	110.0	121.4	140.2	135.7	112.3	114.9

(a) Per cent change is change from the June quarter of previous year (b) Series for Housing and All groups have been affected by a change in the treatment of mortgage interest charges from March Quarter 1989. For more detail refer to the information paper, *The Australian Consumer Price Index: Treatment of Mortgage Interest Charges* (ABS Catalogue No. 6442.0).

Historical Statistics

TABLE 21.14 – STATE AND LOCAL AUTHORITIES: RECEIPTS AND OUTLAY (a)
(\$m)

Year ended 30 June	Receipts and financing transactions						Outlay				
	Taxes, fees, fines	Net operating public trading enterprises	Property and other income	Grants from the Commonwealth Government	Financing transactions	Total funds available	Final consumption expenditure	Capital expenditure on goods(b)	Transfer payment	Net advances paid	Total outlay
1976	322	66	99	772	53	1,312	728	435	131	18	1,312
1977	371	37	120	844	155	1,528	871	483	157	17	1,528
1978	423	80	168	974	259	1,905	1,005	551	330	19	1,905
1979	466	90	172	1,056	315	2,100	1,113	608	363	16	2,100
1980	519	98	185	1,168	352	2,321	1,267	646	409	—	2,321
1981	590	130	212	1,307	281	2,520	1,425	627	466	2	2,520
1982	690	155	249	1,430	316	2,840	1,609	717	516	-1	2,841
1983	772	194	316	1,619	857	3,757	1,864	1,196	677	20	3,757
1984	924	274	355	1,874	835	4,262	2,096	1,252	850	63	4,262
1985	1,062	301	394	2,067	585	4,410	2,313	1,102	972	22	4,409
1986	1,145	401	510	2,214	644	4,915	2,581	1,147	1,110	76	4,915
1987	1,397	518	529	2,395	679	5,518	2,815	1,328	1,294	81	5,518
1988	1,699	563	600	2,594	432	5,888	3,134	1,222	1,482	50	5,888
1989	1,984	601	793	2,586	805	6,769	3,505	1,414	1,601	60	6,769

(a) This series replaces 'Public Revenue and Expenditure: Consolidated Revenue Fund' and 'Net Expenditure from Loan Funds: Public Debt' on next page. (b) includes gross fixed capital expenditure, increase in stocks and expenditure on land and intangible assets (net).

TABLE 21.15 – STATE AND LOCAL AUTHORITIES: REVENUE, FINANCING AND OUTLAYS (a)
(\$m)

Year ended 30 June	Revenue			Financing				Outlays		
	Taxes, fees, fines	Other	Total	Increase in provisions	Net borrowings	Other	Total	Current	Capital	Total
1990	2,080	4,391	6,471	303	384	148	835	5,500	1,807	7,306
1991	2,207	4,489	6,696	341	1,006	-367	980	5,961	1,714	7,675
1992	2,334	4,676	7,010	262	1,343	-899	706	6,127	1,589	7,716
1993	2,438	4,858	7,296	252	757	-343	666	6,287	1,675	7,962
1994	2,819	4,991	7,810	286	-59	-140	87	6,417	1,480	7,897

(a) This series replaced Table 21.14 'State and Local Authorities: Receipts and Outlays'; all data in this series are revised except for 1994.

TABLE 21.16 - PUBLIC REVENUE AND EXPENDITURE: CONSOLIDATED REVENUE FUND
(£'000)

Year (a)	Revenue					Expenditure						
	Common-wealth funds	Public utilities	Departmental (b)	Taxation	Territorial (c)	Total revenue	Public utilities	Interest and sinking fund	Departmental			Total expenditure
									Education	Health	Other	
1850	n.a.	n.a.	n.a.	n.a.	4	38	n.a.	n.a.	n.a.	n.a.	n.a.	33
1860	n.a.	n.a.	n.a.	n.a.	35	140	n.a.	n.a.	3	n.a.	n.a.	123
1870	n.a.	n.a.	n.a.	n.a.	40	196	n.a.	n.a.	7	n.a.	n.a.	226
1880	n.a.	n.a.	n.a.	n.a.	72	360	n.a.	40	19	n.a.	n.a.	409
1890	n.a.	n.a.	n.a.	n.a.	217	829	n.a.	144	23	n.a.	n.a.	803
1900	n.a.	2,612	182	244	380	5,751	1,863	880	138	198	2,049	5,231
1910	1,407	3,916	551	673	649	7,315	2,440	2,006	367	328	1,533	6,895
1920	1,197	6,364	1,188	1,688	818	11,727	5,156	4,124	829	642	1,931	13,063
1930	1,547	10,596	3,134	2,906	950	19,501	8,073	6,891	1,385	649	2,872	20,537
1931	1,547	9,228	3,279	2,269	678	17,374	6,654	7,243	1,346	486	3,950	20,215
1932	1,547	8,818	2,766	2,014	585	16,071	5,724	7,015	1,098	328	4,543	19,186
1933	1,947	8,873	2,701	2,257	558	16,664	5,682	7,009	1,108	333	3,761	18,392
1934	2,147	8,867	2,240	2,737	626	16,963	5,870	7,095	1,153	309	3,560	18,541
1935	2,413	9,837	1,562	3,804	812	18,663	6,391	7,100	1,225	326	3,342	18,997
1936	2,617	10,366	1,677	4,372	767	20,067	6,756	7,135	1,331	341	3,595	19,891
1937	2,013	10,633	1,727	4,807	773	20,371	7,247	7,237	1,432	381	4,024	21,113
1938	2,097	11,148	1,980	5,190	749	21,638	7,249	7,579	1,474	380	4,158	21,659
1939	2,087	11,159	1,786	5,728	634	21,899	7,857	7,779	1,514	401	3,992	22,340
1940	2,137	11,102	1,942	5,992	632	22,240	7,662	8,021	1,545	416	4,070	22,534
1941	2,247	11,366	1,916	6,255	638	22,864	7,534	8,114	1,568	421	4,262	22,842
1942	2,207	12,133	2,204	6,222	620	23,880	8,282	8,204	1,662	436	4,293	23,877
1943	7,852	13,518	2,497	1,330	634	26,303	9,377	8,183	1,627	458	5,564	26,254
1944	7,935	13,626	2,868	1,553	700	27,178	9,870	8,185	1,747	506	5,780	27,102
1945	8,044	13,618	3,402	1,715	697	27,908	10,064	8,251	1,778	485	6,261	27,899
1946	9,960	13,303	2,519	1,936	709	28,815	10,825	8,168	2,005	1,010	5,621	28,815
1947	11,461	11,769	3,105	2,138	1,053	29,962	10,866	8,012	2,447	1,369	5,910	30,057
1948	14,515	13,242	3,575	2,354	1,202	35,421	13,996	8,089	3,298	1,841	7,280	36,125
1949	17,136	15,032	4,564	2,683	1,106	41,121	16,720	8,215	3,519	2,613	9,942	42,756
1950	22,975	17,792	5,733	3,240	1,225	51,622	20,237	8,508	4,160	3,633	13,096	51,574
1951	25,343	19,085	5,911	3,912	1,230	56,312	21,974	8,994	5,269	4,465	13,180	55,994
1952	29,923	24,335	6,863	4,633	1,300	67,910	27,490	9,741	7,262	6,269	15,696	69,094
1953	39,056	22,385	8,557	5,247	1,513	77,768	32,044	10,611	8,686	6,926	17,639	78,784
1954	38,342	29,860	8,378	6,468	1,929	86,292	35,234	12,147	9,503	7,675	18,797	86,497
1955	38,759	32,645	9,433	7,258	2,014	91,440	36,089	13,857	11,217	8,026	19,838	92,408
1956	43,373	33,969	9,779	8,036	2,498	99,225	39,184	15,451	12,482	9,344	21,501	102,886
1957	46,759	37,133	12,548	9,027	2,433	108,662	42,022	17,043	13,636	10,067	33,645	112,487
1958	51,808	34,525	13,640	10,729	2,516	114,108	40,103	19,303	15,172	11,026	25,572	116,355
1959	55,496	36,080	14,522	10,368	2,783	120,136	40,317	20,844	15,819	11,967	29,244	123,506
1960	58,871	38,575	15,696	11,834	2,878	128,776	42,418	23,053	17,282	13,565	29,861	131,587
1961	65,519	40,830	16,372	12,079	2,797	138,665	41,072	24,628	19,541	15,018	35,160	141,075
1962	73,430	42,456	16,549	12,926	3,283	149,852	42,097	27,250	21,417	14,935	40,131	151,780
1963	75,847	43,559	18,134	14,762	3,501	157,182	42,267	29,980	22,850	16,073	41,254	158,687
1964	78,988	45,376	20,948	17,604	3,751	167,888	44,247	31,771	25,880	18,705	43,430	170,681
1965	88,565	39,778	26,712	19,512	4,107	180,143	43,360	34,669	29,133	21,160	49,401	184,840
1966	103,459	45,683	28,753	22,574	4,598	206,655	47,106	37,926	34,016	23,086	56,869	206,665
1967	106,748	52,787	31,461	27,536	7,655	228,146	53,182	41,662	36,746	26,429	61,512	228,174
1968	112,617	56,226	33,135	34,916	11,845	250,738	60,728	43,864	41,224	29,294	65,362	249,909
1969	126,621	54,407	33,035	41,602	17,301	275,081	64,016	47,083	46,441	33,613	74,822	276,135
1970	141,326	62,921	36,905	50,865	23,633	318,189	71,166	51,427	55,839	41,343	87,660	318,901
1971	170,396	68,350	45,583	48,434	32,187	367,252	79,717	54,178	66,341	52,575	107,129	371,620
1972	180,132	73,446	54,131	78,490	34,992	423,999	82,410	62,029	82,472	59,862	125,260	424,890
1973	200,633	69,158	66,711	97,141	37,162	473,840	88,372	65,280	94,547	71,866	144,005	477,330
1974	232,111	85,291	76,306	126,929	43,346	567,683	104,178	69,200	115,982	100,841	168,122	573,414
1975	313,846	108,921	96,930	160,307	49,010	734,240	121,494	75,300	165,705	148,161	213,042	743,373

(a) From 1900, year ended 30 June. (b) Reimbursements, fees, etc. (c) Revenue from sales, leases, licences and royalties relating to land, mining and timber.

NOTE: This table was replaced by Table 21.14 'State and Local Authorities: Receipts and Outlays'.

Historical Statistics

TABLE 21.17 - NET EXPENDITURE FROM LOAN FUNDS; PUBLIC DEBT
(\$'000)

Net expenditure from loan funds on public works and services (b)								Public debt (at end of year)	
Year (a)	Railways, tramways and buses	Electricity supply	Harbours, rivers, light- houses, etc.	Water supplies sewerage, drainage and irrigation	Public buildings	Other	Total	Gross amount out- standing	Sinking fund
1860	—	—	—	—	—	—	—	4	—
1870	—	—	—	—	—	—	—	—	—
1880	(c)549	—	(d)38	—	—	n.a.	(d)802	722	n.a.
1890	3	—	6	2	(e)76	n.a.	32	2,735	170
1900	302	—	395	949	—	110	1,757	23,349	754
1910	908	—	174	199	152	626	2,058	46,575	5,139
1920	242	—	204	94	21	4,765	5,327	93,644	13,656
1930	1,819	—	529	610	108	4,226	7,291	142,389	2,081
1931	878	—	257	420	—	1,457	3,012	153,130	2,621
1932	263	—	155	1,152	—	1,055	2,624	159,416	2,618
1933	374	—	485	1,355	69	1,838	4,121	167,029	2,693
1934	659	—	492	1,606	196	2,344	5,297	171,696	743
1935	997	—	610	2,155	213	1,103	5,076	177,180	1,048
1936	946	—	602	2,487	169	700	4,903	180,688	1,138
1937	491	—	352	2,303	178	741	4,064	184,666	1,292
1938	950	—	201	1,843	183	1,144	4,321	187,424	614
1939	441	—	184	1,777	230	640	3,272	190,945	719
1940	200	—	104	1,615	732	974	3,624	192,461	608
1941	214	18	152	1,649	306	480	2,819	195,583	1,147
1942	110	25	111	605	70	437	1,359	194,718	535
1943	157	92	133	100	55	217	754	193,976	347
1944	49	31	Cr. 143	75	166	34	212	192,957	140
1945	140	11	61	150	241	492	1,094	191,790	254
1946	142	208	75	473	451	276	1,625	193,852	1,008
1947	535	332	173	1,453	772	821	4,087	198,005	1,091
1948	676	1,471	316	1,388	1,097	125	5,074	200,549	309
1949	913	2,131	449	1,626	1,099	942	7,161	207,377	126
1950	4,496	4,691	804	2,002	1,357	2,859	16,209	219,100	142
1951	3,723	6,591	1,164	4,091	2,003	3,081	20,653	246,374	17
1952	15,198	6,684	2,694	4,803	2,729	3,409	35,517	276,577	647
1953	13,533	179	2,422	4,858	5,432	8,787	35,213	306,144	1,861
1954	11,295	1,406	2,328	3,939	3,144	6,276	28,388	331,565	822
1955	9,752	1,410	1,920	5,661	3,993	6,726	29,462	355,763	442
1956	6,139	2,049	1,638	5,516	4,187	7,098	26,629	377,465	245
1957	5,519	4,200	950	7,119	5,599	9,169	32,556	410,290	112
1958	4,209	2,480	1,398	7,694	5,891	6,599	28,272	436,857	147
1959	5,711	2,200	1,428	8,395	7,410	7,199	32,342	464,237	173
1960	4,953	1,553	1,373	9,547	8,723	6,355	32,504	493,575	171
1961	4,221	400	1,966	10,314	10,479	8,037	35,418	523,070	94
1962	5,432	300	2,587	10,952	12,032	6,449	37,751	555,130	222
1963	6,204	500	2,438	10,770	13,420	5,563	38,894	587,336	485
1964	7,496	—	3,028	10,537	15,630	6,409	43,100	626,045	442
1965	6,800	794	2,822	10,957	19,948	5,457	46,779	665,620	473
1966	7,628	1,434	2,583	12,667	19,908	3,580	47,800	705,514	267
1967	9,068	2,427	1,746	13,642	18,230	5,902	51,015	748,601	216
1968	7,750	4,542	2,402	14,552	18,816	5,115	53,177	792,969	408
1969	10,547	5,679	1,190	12,560	20,116	4,765	54,859	840,343	3,015
1970	6,331	4,566	2,055	13,330	24,627	8,594	59,504	886,778	182
1971	7,194	27	2,202	15,176	25,549	13,492	63,640	924,111	582
1972	5,919	3,666	1,902	18,369	23,994	32,606	86,456	975,958	1,216
1973	4,179	4,104	2,371	23,598	32,872	21,882	89,006	1,030,060	265
1974	5,569	3,467	2,505	26,708	34,324	3,291	75,863	1,074,111	4,899
1975	6,185	4,069	3,728	24,487	45,262	6,140	89,871	1,120,313	1,037

(a) From 1900, year ended 30 June. Sinking fund at 31 March from 1900 to 1928. (b) From 1928 includes expenditure from Loan Suspense Account. (c) Total amount for the years 1877 to 1881. (d) Total amount for the years 1872 to 1881. (e) Includes expenditure prior to 1890.

NOTE: This table was replaced by Table 21.14 'State and Local Authorities: Receipts and Outlay'.

TABLE 21.18 – WESTERN AUSTRALIA IN RELATION TO AUSTRALIA

	Unit	Date or period	Western Australia	Australia	Percentage
Area	sq km	..	2,525,500	7,682,300	32.9
Proportion of area having rainfall —					
Under 250 mm	per cent	..	58.0	39.0	..
250 mm and under 500 mm	per cent	..	29.2	31.8	..
500 mm and over	per cent	..	12.8	29.2	..
Population (a)	number	30 June 1994	1,701,100	17,843,400	9.5
Population increase	number	1993-1994	24,800	182,000	13.6
Rate of population increase	per cent	1993-1994	1.48	1.03	..
Births registered (b)	number	1994	25,124	258,051	9.7
Deaths registered (b)	number	1994	10,295	126,692	8.1
Marriages registered	number	1994	10,366	111,174	9.3
Divorce - Dissolutions granted	number	1994	5,024	48,256	10.4
Employed labour force (c)	'000	May 1995	835.1	8,216.4	10.2
Average weekly earnings - all male employees	dollars	May 1995	656.60	652.70	..
Unemployed on benefit	number	30 June 1993	79,903	882,979	9.0
Industrial disputes - Working days lost	'000	1994	27.4	501.6	5.5
Area under crop	'000 hectares	1993-94	6,100	18,043	33.8
Area under sown pasture	'000 hectares	1993-94	7,309	29,456	24.8
Area of —					
Wheat for grain	'000 hectares	1993-94	3,852	8383	46.0
Oats for grain	'000 hectares	1993-94	268	947	28.3
Barley for grain	'000 hectares	1993-94	799	3,424	23.3
Pastures cut for Hay	'000 hectares	1993-94	111	977	11.4
Fruit and vineyards	'000 hectares	1993-94	10	200	5.0
Livestock —					
Sheep	'000	31 March 1994	31,952	132,569	24.1
Cattle	'000	31 March 1994	1,806	25,782	7.0
Pigs	'000	31 March 1994	312	2,775	11.2
Production —					
Wheat for grain	'000 tonnes	1993-94	6,689	16,479	40.6
Wool (d)	'000 tonnes	1993-94	180	668	26.3
Meat (e)	'000 tonnes	1993-94	272	3,280	7.9
Whole milk (f)	mil. litres	1993-94	344	n.y.a.	n.a.
Butter (f)	tonnes	1993-94	2,665	n.y.a.	n.a.
Value of agricultural commodities produced	\$m	1993-94	3,365	23,479	14.3
Mining establishments - Value added	\$m	1990-91	(g)r7,603.2	r21,092.9	r36.0
Iron ore production	'000 tonnes	1993-94	119,690	115,703	96.6
Coal production	'000 tonnes	1993-94	(h)5,153	177,970	3.0
Crude oil production (i)	megalitres	1993-94	7,678	30,592	21.4
Manufacturing establishments (j) —					
Number	..	1991-92	3,645	41,480	8.8
Employment - At 30 June	'000	1991-92	62.5	906.9	6.9
Wages and salaries paid	\$m	1991-92	1,785.0	27,068.0	6.6
Turnover	\$m	1991-92	12,903.0	168,018.7	7.7
New dwelling units commenced	number	1993-94	24,800	177,922	13.9
Value of all building commenced	\$m	1993-94	2,821.5	26,757.1	10.5
Foreign imports	\$m f.o.b.	1993-94	4,791.8	64,470.0	7.4
Foreign exports	\$m f.o.b.	1993-94	15,659.6	64,611.0	24.2
Motor vehicles on register	'000	30 June 1994	1,142.4	10,699.2	10.7
New motor vehicles registered	'000	1993-94	63.2	591.7	10.7
Road traffic accidents—					
Persons killed	number	1993	209	1,952	10.7
Retail turnover (excluding motor vehicles, etc.)(k)	\$m	1993-94	10,312.3	101,073.6	10.2

(a) Based on estimated resident population. (b) Based on State of usual residence. (c) In civilian employment and seasonally adjusted. Excludes defence forces and employees in agriculture and private domestic service, and trainee teachers. (d) In terms of greasy wool. Comprises shorn wool, dead wool, fellmongered wool and wool exported on skins. (e) Comprises sheep, cattle, pig and poultry meat. Excluding Tasmanian poultry production. Dressed carcass weight. Excludes offal. (f) Source: Australian Dairy Corporation. (g) Excludes establishments predominantly engaged in quarrying sand and gravel. (h) Source: Department of Minerals and Energy. (i) Source: Department of Primary Industries and Energy. (j) Excludes details for manufacturing establishments employing fewer than four persons. Excludes electricity and gas establishments. (k) At current prices.

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APPENDIX

Chapter 22

APPENDIX

ARTICLES PUBLISHED IN PREVIOUS ISSUES (a)

In cases where an article has been published in more than one previous issue, the reference to its last appearance only is given.

Article	Year Book
Aboriginal companions	1995, pp. 8-9
Aboriginal population, history of	1984, pp. 1-8
Abuse in families campaign	1995, p. 79
Agriculture, Institute of, University of Western Australia	1975, pp. 217-8
Air pollution and the weather	1975, pp. 63-5
Albany, Port of	1971, pp. 449-51
ANZAAS Congress: Perth, 1973	1973, pp. 562-4
Atmospheric quality of the Perth Central Business District	1995, pp. 48-49
Australian Security Commissions Regulatory Initiatives Protect Investors	1993, p. 338
Australian Stock Exchange (Perth) Ltd.	1989, pp. 257-9
Barron Films - Ship to Shore 2	1995, p. 166
Basic wage, historical summary—	
Commonwealth	1968, pp. 396-401
State	1968, pp. 403-5
Bicycles in Western Australia	1993, p. 308
Breast cancer screening	1995, pp. 121-2
Burt, Sir Archibald - A Colonial Legal Eagle	1993, p. 23
Captain Fremantle's Report of Arrival of First Settlers, text of	1976, pp. 541-2
Captain Stirling's 'Narrative of Operations', text of	1974, pp. 533-41
Census of Wholesale Establishments, 1968-69	1976, pp. 434-7
Censuses of population and housing, 1911 to 1966	1972, pp. 547-70
Census of population and housing, 1991	1992, pp. 6-7
Centenary of the discovery of the Collie coalfields	1983, pp. 393-7
Climatic Extremes of Western Australia	1993, p. 37
Community Services Industry Study	1995, p. 75
Community Welfare, Department for, history of	1981, pp. 135-9
Computer Service Centre, Perth	1969, p. 504
Conservation of the fauna	1976, pp. 93-5
Conservation of the flora	1975, pp. 78-80
Court, Hon. Richard, MLA, Premier of Western Australia	1993, p. 86
Cowan, Edith - A Great Dame	1993, p. 25
Crime Victims Survey	1993, pp. 157-8
Crown Law Department, history of	1983, pp. 129-31
Dance Triennium, 1990-92	1992, pp. 6-7
Disability Reform Package - Focus on Ability	1993, p. 355
Economic and political factors affecting the mining industry	1995, p. 223
Ecotourism - a partnership in nature	1995, pp. 266-7
Education Department, history of	1972, pp. 117-21
Electoral Divisions (Commonwealth)	1971, pp. 97-8
Electoral Divisions (Commonwealth), origin of name of	1970, p. 530

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In cases where an article has been published in more than one previous issue, the reference to its last appearance only is given.

Article	Year Book
Electoral Provinces and Electoral Districts (State)	1976, pp. 116-17
Esperance, Port of	1973, pp. 444-6
Exploration in Western Australia	1975, pp. 9-28
Export price index	1970, p. 507
First water restrictions introduced in 16 years	1995, p. 229
Fisheries and Wildlife, Department of, history of	1984, pp. 121-4
Flag of Western Australia, history	1984, p. 120
Flora of Western Australia—	
Acacia	1965, pp. 59-60
'Christmas tree' (<i>Nuytsia floribunda</i>)	1962, p. 51
Flora of Western Australia— <i>continued</i>	
Economic value of the flora	1968, pp. 54-5
Grasses	1976, pp. 69-72
Orchids	1968, pp. 48-9
Proteaceae family in Western Australia	1974, pp. 52-4
Rutaceae family in Western Australia	1972, pp. 53-5
Special features of the flora	1962, pp. 51-2
Food Hygiene	1993, p. 142
Forests Department, history of	1976, pp. 125-7
Fremantle, Port of	1970, pp. 441-3
Geraldton, Port of	1972, pp. 447-9
Government administration, Commonwealth	1973, p. 542
Governor Darling's letter to the Earl of Bathurst, text of	1974, pp. 541-2
Governors and Acting Governors of Western Australia	1982, pp. 121-2
Governor Stirling's Commission dated 4 March 1831, text of	1979, pp. 12-16
Greenhouse Effect	1993, p. 41
Heritage Trails of the Goldfields	1993, p. 383
His Excellency, Major General Philip Michael Jeffery, AO MC,	1995, p. 54
Historical review — chronological notes from 1829	1967, pp. 2-33
Historical survey of Western Australia	1973, pp. 1-15
History of the Royal Agricultural Society of Western Australia (Inc.)	1991, pp. 181-4
History of Western Australia	1990, pp. 1-5
Home based businesses	1995, p. 245
Housing and Construction, historical review	1986, pp. 367-9
Hydrocarbon Exploration on the North-West Shelf	1976, pp. 37-9
Industrial development, Department of	1974, p. 403
Inner city living	1995, pp. 319-20
Integrated Economic Censuses, 1968-69	1971, pp. 552-64
Jesus People	1989, pp. 115-6
Kalgoorlie/Boulder: Events for Everyone	1993, p. 382
Kuri Bay pearls	1974, pp. 558-9
Labour Force Survey	1971, pp. 508-10
Land settlement schemes, government	1976, pp. 328-9
Land tenure system, origin and development of	1960, pp. 198-9
Lands and Surveys Department, history of	1980, pp. 128-31
Lawrence M.L.A., Hon Carmen	1992, pp. 5-7
Linseed, area and production	1973, pp. 349-50
Local government in Western Australia, development of	1971, pp. 565-70
Long term unemployment	1995, p. 285
Lower Great Southern Statistical Division Profile	1989, pp. 260-71

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In cases where an article has been published in more than one previous issue, the reference to its last appearance only is given.

Article	Year Book
The Mabo controversy	1995, pp. 62-3
McNess Housing Trust	1969, p. 205
Major Lockyer's letter to Colonial Secretary MacLeay, text of	1977, pp. 553-7
Maritime Museum, Western Australian	1986, pp. 237-8
Measuring Unemployment	1993, p. 347
Meteorites, Western Australian	1973, pp. 34-5
Meteorological services—	
History of	1960, pp. 34-5
Provision of	1966, pp. 46-7
Metric conversion for Australia	1972, pp. 571-4
Midlands Statistical Division Profile	1990, pp. 290-8
Mines, Department of, history of	1977, pp. 117-25
New Perth Children's Court, The	1993, p. 154
One Hundred Years of Responsible Government	1990, pp. 70-83
Operation Isobella: a rescue that beat the odds	1993, pp. 164-6
Overseas arrivals and departures	1971, pp. 145-6
Parliamentary procedure and administrative machinery	1970, pp. 106-9
The Per cent for Art scheme	1995, p. 167
Perth Landfill Gas Project	1992, p. 15-5
Perth's underground water	1980, pp. 43-5
Pest control without insecticides	1973, pp. 93-5
Pesticides, effect on beneficial forms of life	1969, pp. 90-1
Physical features and geology	1986, pp. 7-30
Physical features of Western Australia	1993, p. 35
Poisonous plants of Western Australia	1970, pp. 56-9
Police Department, history of	1973, pp. 113-16
Population in local government areas	1972, pp. 542-3
Port Hedland, Port of	1974, pp. 435-8
Premier's Department, history of	1974, pp. 109-13
Principal events of 1970	1971, p. 571
1993 Property Market Review	1995, pp. 236-7
Public Works Department, history of	1971, pp. 116-9
Pyrites, production of	1973, pp. 393-4
Railways—	
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Private	1965, p. 365
Timber	1968, pp. 363-4
Rainfall in agricultural areas, 1969	1970, p. 529
Real Estate in 1992	1993, pp. 282-3
Rents (weekly) of unfurnished houses and flats	1973, p. 216
Revamping Secondary Schooling	1993, p. 176
Ross River Virus— Western Australia	1993, p. 140
Royal Commission into Commercial Activities of Government and Other Matters	1993, pp. 99-100
Satellites and Meteorology	1973, pp. 51-4
Settlement at King George's Sound, early history of	1977, pp. 556-9
Sexually transmissible diseases	1995, pp. 125-6
Ships of the Dutch East India Company, The	1993, p. 21
Showing Western Australia to the World	1993, p. 318
Small Business Opinion Survey	1995, pp. 246-7
South-West Statistical Division Profile	1986, pp. 260-9
Sport and Recreation, Department of	1985, pp. 115-123
1993 Sport Census	1995, pp. 178-9

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In cases where an article has been published in more than one previous issue, the reference to its last appearance only is given.

Article	Year Book
Sporting organisations	1970, pp. 196-200
State Basic Wage	1976, pp. 485-7
State Government Departments, functions of	1972, pp. 108-16
Staying on at school	1995, pp. 152-3
Survey of Small Business Opinion	1993, pp. 294-5
Third Party Claims Tribunal	1973, p. 254
Tornadoes	1970, pp. 48-51
Tourism, Department of, history of	1975, pp. 132-6
Trade, constitutional provisions and legislation	1973, p. 412
Trade, historical summary of	1967, pp. 346-7
Trade, overseas, encouragement of	1973, pp. 412-13
Transport Deregulation	1993, p. 304
Treasury Department, history of	1982, pp. 134-9
Tropical cyclones	1983, pp. 52-61
University — principal benefactions	1969, p. 173
Urban Area of Perth - a statistical snapshot	1995, pp. 316-7
Use of pesticides in Western Australia	1971, pp. 87-90
Using ABS data to track the Western Australian economy	1995, pp. 192-6
Waterfront Reform	1993, p. 312
West Australian Ballet	1989, pp. 140-1
West Australian Economy, 1959 to 1973	1973, pp. 565-71
Western Australia: History of,	1989, pp. 1-10
Western Australia in Peril	1992, p. 1-10
Western Australian Economy, Retrospect and Prospect	1984, pp. 471-7
Western Australian Tourism Commission Offices	1993, p. 319
Western Australian Year of the Family	1995, pp. 82-3
Western Australia's merchandise trade with Japan	1995, pp. 306-7
What caused the storm of 23-24 May 1994	1995, p. 31
Wheat, development of production	1968, p. 270

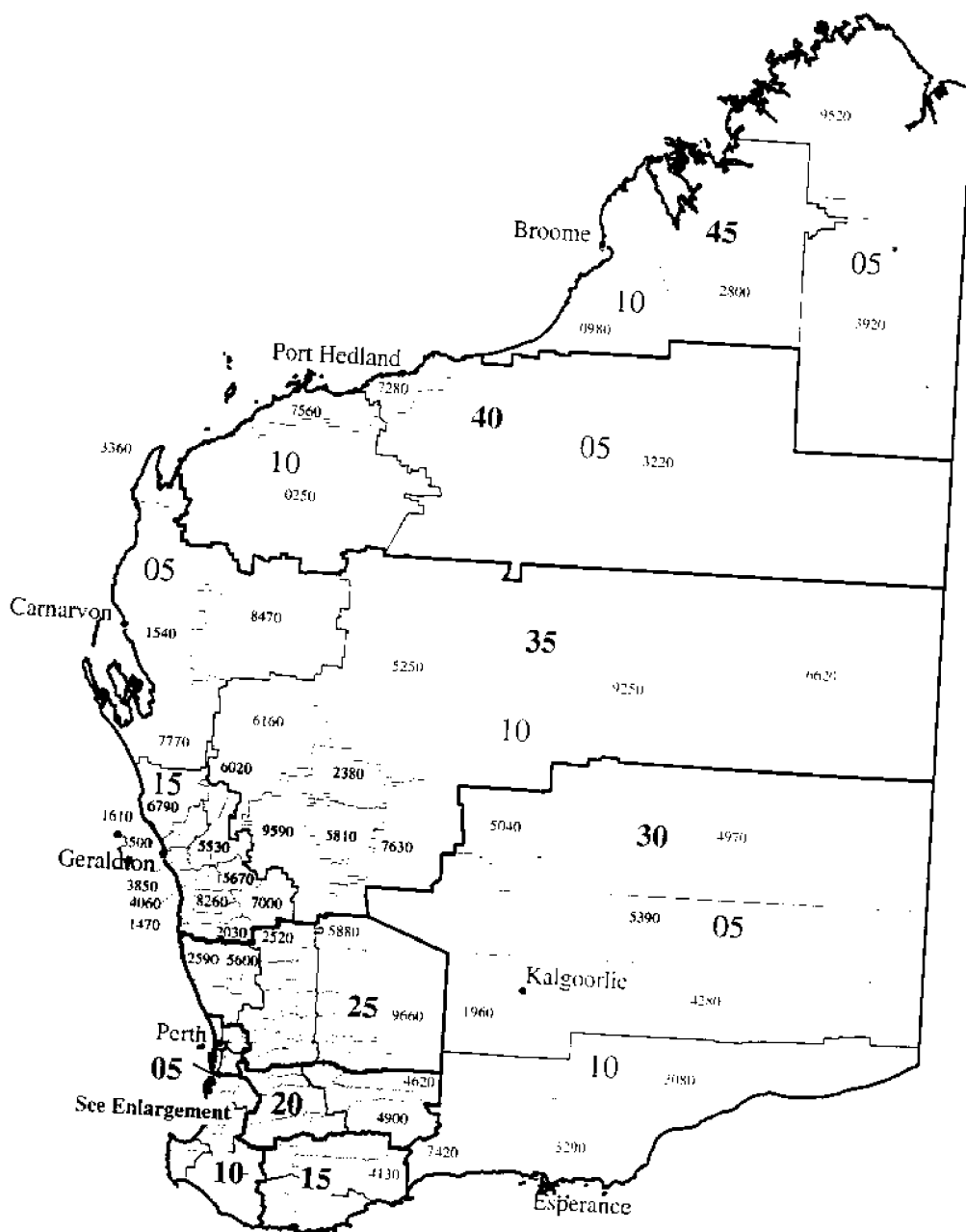
(a) Commencing with the present series: No. 1 1957

STATISTICAL DIVISIONS, SUBDIVISIONS AND STATISTICAL LOCAL AREAS AT 30 JUNE 1995

Statistical Divisions are indicated thus: **SOUTH WEST**: Subdivisions thus: **BLACKWOOD**; Statistical Local Areas thus: Manjimup (S). Cities are named (C), Towns (T) and Shires (S).

Western Australia

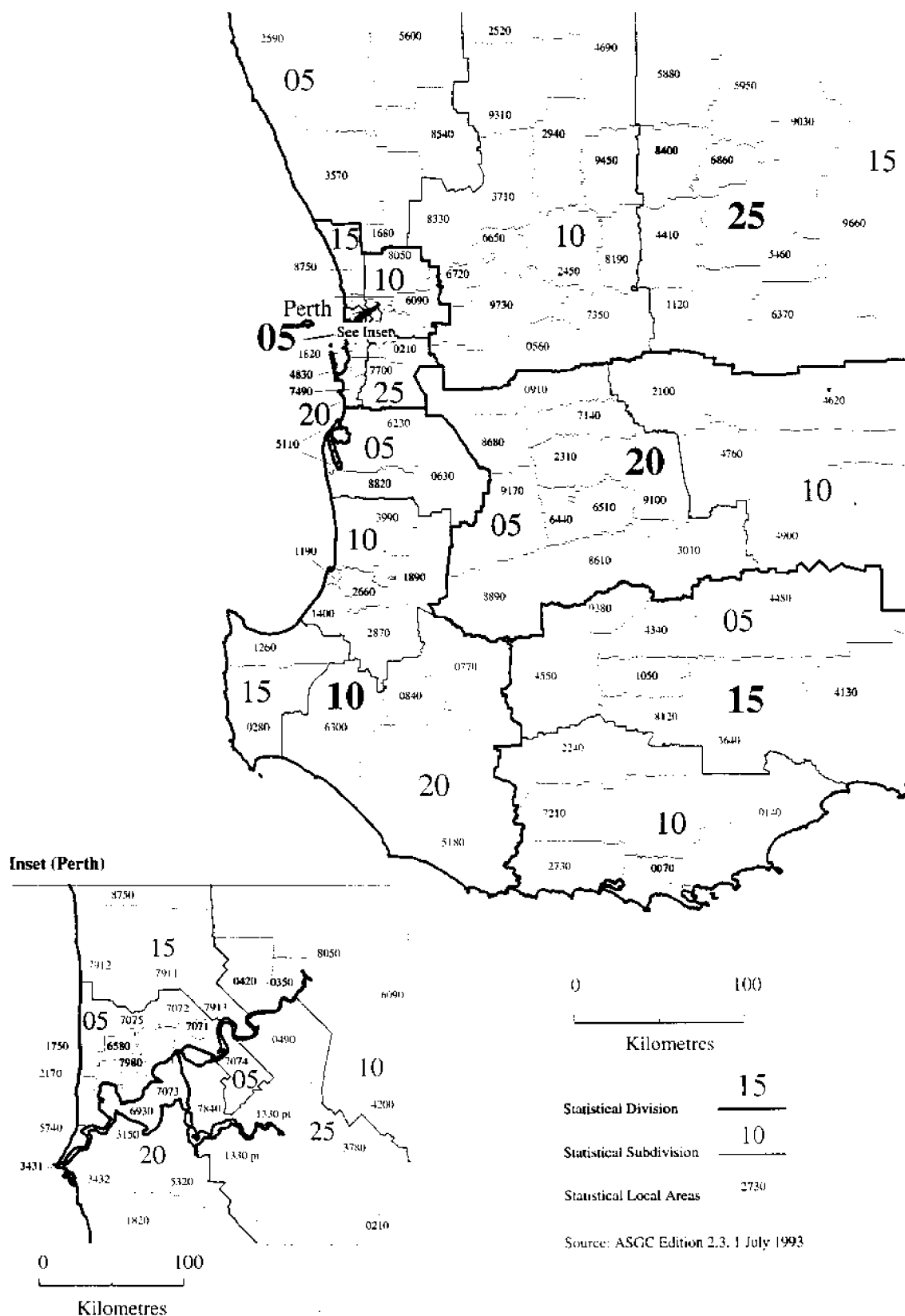
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Western Australia - Enlargement

Statistical Divisions and Statistical Local Areas



Appendix

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Agricultural Areas — Growing Season	1982, p. 64
Air routes at 31 December 1956	1957, p. 289
Air routes at 30 June 1969	1970, <i>between</i> p. 448 and p. 449
Areas of current development	1970, <i>facing</i> p. 336
Comprehensive Agricultural Areas Water Supply Scheme	1985, p. 258
Electoral Boundaries (Federal)	1989 p. 78
Electoral Provinces and Electoral Districts (State)	1969, <i>between</i> p. 96 and p. 97
Electricity supplies	1967, <i>facing</i> p. 320
Epicentres of large earthquakes	1971, p. 33
General map of the State showing statistical divisions, local government areas, roads, railways, air routes and isohyets	1973, <i>inside back</i> cover
General map of the State showing physical features, roads, railways and airfields	<i>inside back</i> cover
Geological sketch map	1986, p. 12
Mineral production, major centres	1990, p. 203
Perth Statistical Division	1978, <i>facing</i> p. 112
Port of Fremantle (Outer and Inner Harbour)	1970, <i>facing</i> p. 448
Port of Port Hedland	1974, p. 437
Principal ports, Western Australia	1989 p. 212
Production, main areas of	1975, <i>inside back</i> cover
Railways and road services — routes operated	1967, <i>facing</i> p. 384
Railways road services — routes operated	1964, p. 354
Rainfall	1969, <i>facing</i> p. 32
Rainfall in agricultural areas, 1969	1970, p. 529
Roads, main and important secondary	1968, <i>facing</i> p. 368
Sedimentary basins and Precambrian blocks	1986, p. 17
South-West Irrigation Districts	1985, p. 262
South-West of Western Australia showing median rainfall, July-September	1986, p. 47
South-West of Western Australia showing decile 1 rainfall, July-September	1986, p. 47
South-West of Western Australia showing predominant agricultural activities	1986, <i>facing</i> p. 300
The forest estate	1986, <i>facing</i> p. 268
Tracks of tropical cyclones (1975-1982)	1983, p. 60
Vegetation Provinces of Western Australia	1974, p. 56
Wettest six monthly period of year	1986, p. 34

(a) Commencing with the present series: No. 1 — 1957

Library Extension Program

LIST OF PARTICIPATING LIBRARIES:

WESTERN AUSTRALIA

STATE AND TERTIARY LIBRARIES

Alexander Library
Library & Information Service
of Western Australia
Perth Cultural Centre
PERTH WA 6000
Tel: (09) 427 3111

Edith Cowan University
Joondalup Campus Library
Joondalup Drive
JOONDALUP WA 6027
Tel: (09) 405 5525

Curtin University of Technology
Graduate School of Business
250 St Georges Terrace
30th Floor QB1
PERTH WA 6001
Tel: (09) 351 3388

Edith Cowan University
Mt Lawley Campus Library
2 Bradford Street
MT LAWLEY WA 6050
Tel: (09) 370 6251

Curtin University of Technology
TL Robertson Library
Kent Street
BENTLEY WA 6102
Tel: (09) 351 7167

Murdoch University Library
South Street
MURDOCH WA 6150
Tel: (09) 360 2563

Edith Cowan University
Bunbury Campus Library
Robertson Drive
BUNBURY WA 6230
Tel: (097) 807 740

Parliament Library
Parliament House (no public access)
Harvest Terrace
PERTH WA 6000
Tel: (09) 222 7222

TAFE COLLEGES:

Edith Cowan University
Churchlands Campus Library
Pearson Street
CHURCHLANDS WA 6018
Tel: (09) 273 8217

C.Y. O'Connor College of TAFE
Hutt Street
NORTHAM WA 6401
Tel: (096) 223 905 ext 140

Appendix

South West Regional College of Tafe
Robertson Drive
BUNBURY WA 6231
Tel: (097) 214 455

Bassendean Memorial Public Library
46 Old Perth Road
BASSENDEAN WA 6054
Tel: (09) 279 2966

Rockingham Collage of Tafe
Simpson Avenue
ROCKINGHAM WA 6168
Tel: (09) 528 0369

Broome Public Library & Information Service
Weld Street
BROOME WA 6728
Tel: (091) 921 635

University of Notre Dame
Fremantle Campus Library
34 Mouat Street
FREMANTLE WA 6160
Tel: (09) 430 0500

Bunbury Public Library & Information Service
Parkfield Street
BUNBURY WA 6230
Tel: (097) 214 766 or 215 585

University of Notre Dame
Broome Campus Library
Guy Street
BROOME WA 6725
Tel: (091) 922 032

Busselton Public Library
Stanley Street
BUSSELTON WA 6280
Tel: (097) 541 588

University of Western Australia
Library
Stirling Highway
NEDLANDS WA 6009
Tel: (09) 380 1589

Carnarvon District Public Library
c/- Shire of Carnarvon
CARNARVON WA 6701
Tel: (099) 411 680

REGIONAL AND PUBLIC LIBRARIES

Albany Public Library & Information Service
221 York Street
ALBANY WA 6330
Tel: (098) 412 333

City of Canning Library Service
Riverton Library
High Road
RIVERTON WA 6155
Tel: (09) 451 0640

Armadale Public Library & Information Service
Orchard Avenue
ARMADALE WA 6112
Tel: (09) 399 3424

City of Nedlands Library Service
60 Stirling Highway
NEDLANDS WA 6009
Tel: (09) 386 6230

Collie Public Library
Wittenoom Street
COLLIE WA 6225
Tel: (097) 341 334

Dianella Public Library
Dianella Plaza Shopping Centre
Waverley Street
DIANELLA WA 6062
Tel: (09) 275 4022

Karratha Community Library
Millstream Road
KARRATHA WA 6714
Tel: (091) 596 852

Esperance Public Library
PO Box 507
ESPERANCE WA 6450
Tel: (090) 711 666

Karrinyup Public Library
Davenport Street
KARRINYUP WA 6018
Tel: (09) 446 8944

Floreat Park Library
Floreat Forum Shopping Centre
Hentree Place
FLOREAT PARK WA 6014
Tel: (09) 387 4700

Leederville Public Library
Cnr Loftus and Vincent Streets
LEEDERVILLE WA 6007
Tel: (09) 444 5502

Fremantle City Library
Cnr Newman and William Streets
FREMANTLE WA 6160
Tel: (09) 430 2266

Mandurah Public Library
331 Pinjarra Road
MANDURAH WA 6210
Tel: (09) 535 4424

Geraldton Regional Library
Cathedral Avenue
GERALDTON WA 6530
Tel: (099) 212 165

Manjimup Public Library
Cnr Rose and Mount Streets
MANJIMUP WA 6258
Tel: (097) 712 895

Gosnell's City Library
2240 Albany Highway
GOSNELLS WA 6110
Tel: (09) 398 1210

Melville City Library & Information Service
Almondbury Road
ARDROSS WA 6153
Tel: (09) 364 0666

Kalamunda Public Library
7 Williams Road
KALAMUNDA WA 6076
Tel: (09) 293 2199

Merredin Public Library
Queen Street
MERREDIN WA 6415
Tel: (090) 411 611

Kalgoorlie Public Library
(William Grundt Memorial Library)
Robert Street
KALGOORLIE WA 6430
Tel: (090) 214 744

Midland Public Library
Tuohy Gardens, The Crescent
MIDLAND WA 6056
Tel: (09) 274 3463

Appendix

Morley Public Library
Morley Square Shopping Centre
7 Dewar Street
MORLEY WA 6062
Tel: (09) 375 1766

South Hedland Public Library and Information
Service
Leake Street
SOUTH HEDLAND WA 6728
Tel: (091) 401 985

Mundaring Library and Information Service
Albert Facey Memorial Library
Nicholl Street
MUNDARING WA 6073
Tel: (09) 294 1421

Spearwood (City of Cockburn) Library
9 Coleville Crescent
SPEARWOOD WA 6163
Tel: (09) 411 3491

Narrogin Public and Information Service
Fortune Street
NARROGIN WA 6312
Tel: (098) 811 944

Subiaco Public Library
Cnr Rokeby and Bagot Roads
SUBIACO WA 6008
Tel: (09) 381 5088

Nedlands Public Library
60-64 Stirling Highway
NEDLANDS WA 6009
Tel: (09) 386 6230

Thornlie Public Library
Cnr Commerara Drive and Curloss Avenue
THORNIE WA 6108
Tel: (09) 459 2499

Northam Regional Library
298 Fitzgerald Street , PO Box 269
NORTHAM WA 6401
Tel: (096) 221 1466

Victoria Park Public Library
Perth City Council
27 Sussex Street
VICTORIA PARK WA 6100
Tel: (09) 361 1977

Perth City Library
Law Chambers, 575 Hay Street, Lower Floor
PERTH WA 6000
Tel: (09) 265 3373

Whitford Public Library
Cnr Marmion & Banks Avenues
HILLARYS WA 6025
Tel: (09) 401 8222

Rockingham Public Library
Simpson Avenue
ROCKINGHAM WA 6168
Tel: (09) 528 0369

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Recommended retail price: \$35.00



2130050001967
ISSN 0083-8772